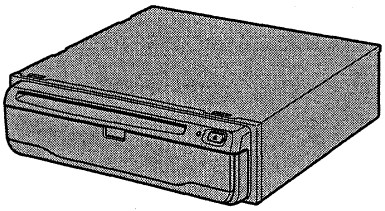
Pioneer sound.vision.soul

Service Manual

AVIC-90DVD/UC



ORDER NO.
CRT2890

DVD NAVIGATION UNIT

AVIC-90DVD UC

AVIC-9DVDII EW

- **This service manual should be used together with the following manual(s):**

Model No.	Order No.	Mech. Module	Remarks
CX-954	CRT2670	MS2	DVD Mech. Module:Circuit Description, Mech.Description, Disassembly

- **Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.**

- **This product has the unit part numbers as below.**

Unit Part No.	Description
CPN1803	Main Assy (AVIC-90DVD/UC)
CPN1801	Main Assy (AVIC-9DVDII/EW)

*) The unit part numbers listed above are not for the service components.

- **For your inspection, the following extention cords are supplied. Use them if necessary.**

Part to use	Part No.
Main PCB (CN3251) <--> DVD Core Unit V (CN1701)	GGD1284
Main PCB (CN3254) <--> CC Unit (CN302)	GGD1264
Main PCB (CN3901) <--> Interface PCB (CN5004)	GGD1171
Main PCB (CN552) <--> GPS Unit (CN461)	GGD1265
CC Unit (CN2) <--> DVD Core Unit V (CN1401)	GGD1268

For details, refer to "Important symbols for good services".

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1. SAFETY INFORMATION

● AVIC-90DVD/UC

CAUTION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer.
Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty.
If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.
Health & Safety Code Section 25249.6 - Proposition 65

● AVIC-9DVDII/EW

CAUTION

Danger of explosion if battery is incorrectly replaced.
Replaced only with the same or equivalent type recommended by the manufacture.
Discord used batteries according to the manufacture's instructions.

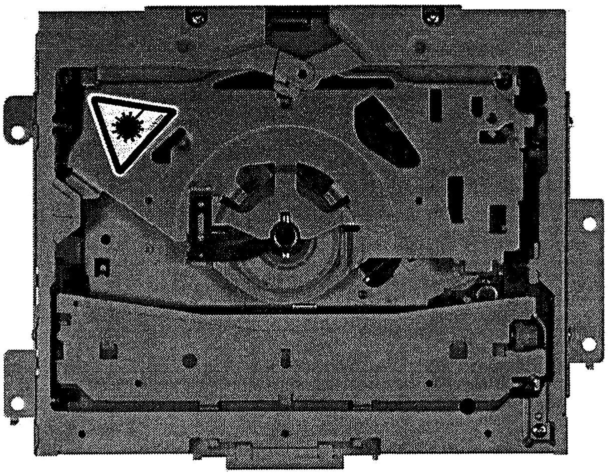
1. **Safety Precautions for those who Service this Unit.**

- **Follow the adjustment steps (see pages 129 through 149)in the service manual when servicing this unit. When checking or adjusting the emitting power of the laser diode exercise caution in order to get safe, reliable results.**

Caution:

1. **During repair or tests, minimum distance of 13cm from the focus lens must be kept.**
2. **During repair or tests, do not view laser beam for 10 seconds or longer.**

2. The triangular label is attached to the mechanism unit frame.



CAUTION

This product contains a laser diode of higher class than 1. To ensure continued safety, do not remove any covers or attempt to gain access to the inside of the product.
Refer all servicing to qualified personnel.

The following caution label appears on your unit.

Location: on the bottom of the unit

CLASS 1
LASER PRODUCT

En

On the bottom of the player.

CAUTION : VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.
VORSICHT : SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET NICHT DEM STRAHL AUSSETZEN!
ADVARSEL : SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING UNDGÅ UDSÆTTELSE FOR STRÅLING.
VARNING : SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD BETRAKTA EJ STRÅLEN.
VARO! : AVATTAESSA ALTISTUT NÄKYVÄ JA NÄKYMÄTTÖMÄLLE LASERSATEIL YLLE. ÄLÄ KATSO SÄTEESEN.
VRW1699

WARNING!

The AEL (accessible emission level)of the laser power output is less than CLASS 1 but the laser component is capable of emitting radiation exceeding the limit for CLASS 1.
A specially instructed person should do servicing operation of the apparatus.

Laser diode characteristics

Wave length:
DVD:640~660nm
CD:770~810nm
Maximum output:2.44mw(Emitting period :9sec.)
DVD:743mw(Emitting period : unlimited)

Additionla Laser Caution

Transistors Q1104 and Q1108 in PCB drive the laser diodes for DVD and CD respectively. When Q1104 or Q1108 is shorted between their terminals, the laser diodes for DVD or CD will radiate beam. If the top cover is removed with no disc loaded while such short-circuit is continued, the naked eyes may be exposed to the laser beam.

[Important symbols for good services]
In this manual, the symbols shown-below indicate that adjustments, settings or cleaning should be made securely.
When you find the procedures bearing any of the symbols, be sure to fulfill them:

1. Product safety

You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.

2. Adjustments

To keep the original performances of the product, optimum adjustments or specification confirmation is indispensable. In accordance with the procedures or instructions described in this manual, adjustments should be performed.

3. Cleaning

For optical pickups, tape-deck heads, lenses and mirrors used in projection monitors, and other parts requiring cleaning, proper cleaning should be performed to restore their performances.

4. Shipping mode and shipping screws

To protect the product from damages or failures that may be caused during transit, the shipping mode should be set or the shipping screws should be installed before shipping out in accordance with this manual, if necessary.

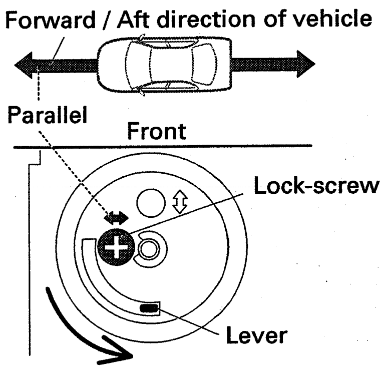
5. Lubricants, glues, and replacement parts

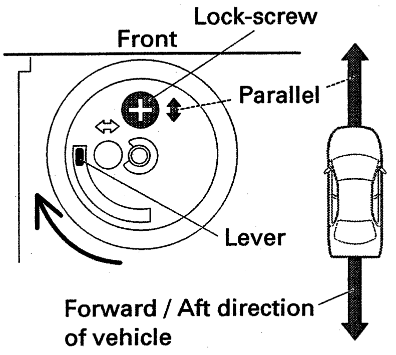
Appropriately applying grease or glue can maintain the product performances. But improper lubrication or applying glue may lead to failures or troubles in the product. By following the instructions in this manual, be sure to apply the prescribed grease or glue to proper portions by the appropriate amount.For replacement parts or tools, the prescribed ones should be used.

● DVD Player Service Precautions

1. Never adjust the LD VR in the pickup unit to protect the pickup from electrical damages.
2. For pickup unit(service)(CXX1530) handling, please refer to"Disassembly"(see page 173).
   During replacement, handling precautions shall be taken to prevent an electrostatic discharge(set the short switch of the pickup unit to the SHORT side).
3. During disassembly, be sure to turn the power off since an internal IC might be destroyed when a connector is plugged or unplugged.
4. Please adjusting the skew after changing the pickup unit(see page 132).

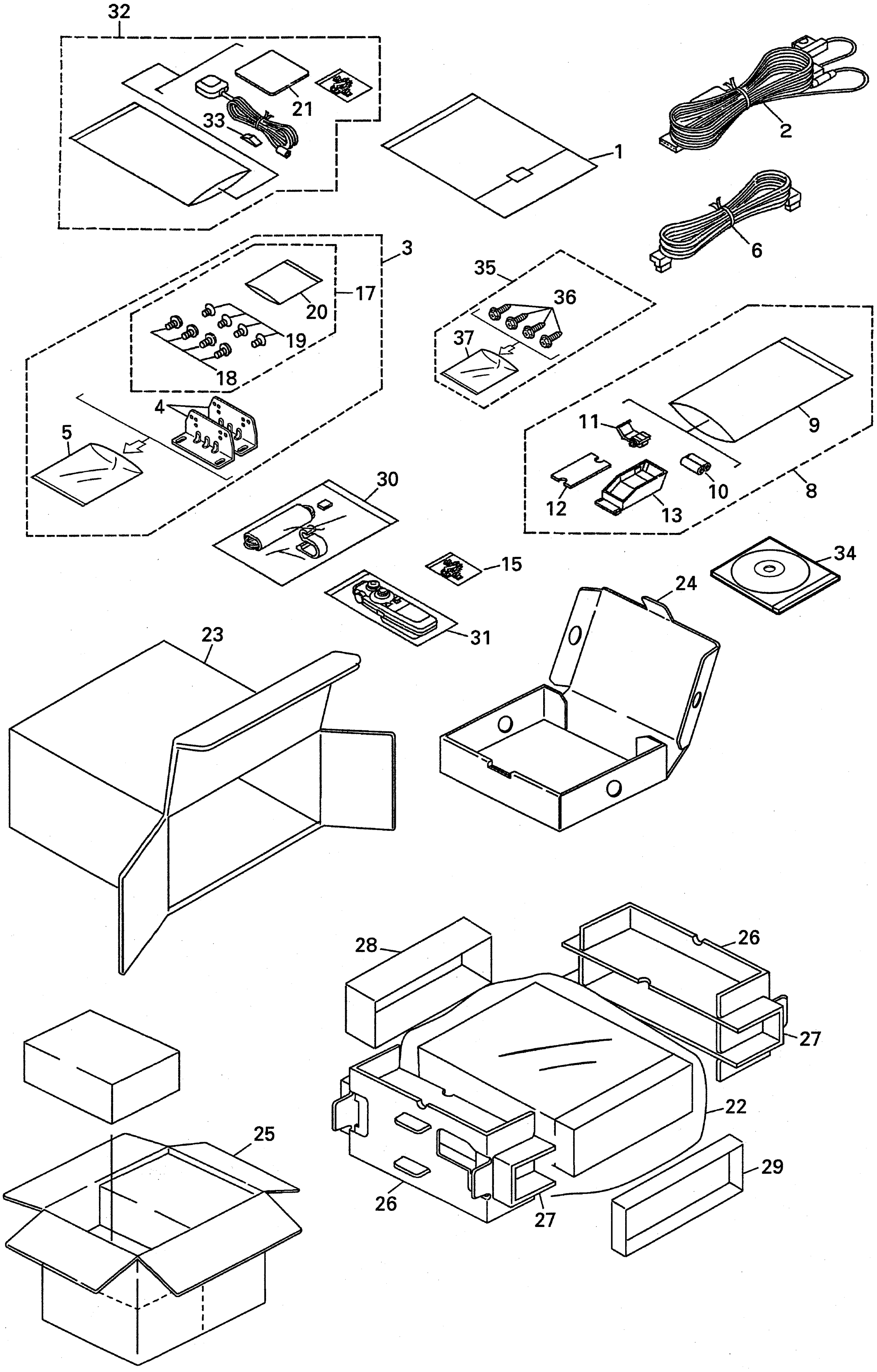
- High voltage is generated in the inverter when the power is supplied to the system. To avoid an electric shock, reconfirm that the power switch is set to OFF before starting operation.
- Check of installation direction when G-Sensor Unit was after repair.





2. EXPLODED VIEWS AND PARTS LIST

2.1 PACKING (AVIC-90DVD/UC)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NOTE:

- Parts marked by "*" are generally unavailable because they are not in our Master Spare Parts List.
- Screws adjacent to ∇ mark on the product are used for disassembly.
- For the applying amount of lubricants or glue, follow the instructions in this manual.
  (In the case of no amount instructions, apply as you think it appropriate.)

● PACKING (AVIC-90DVD/UC) SECTION PARTS LIST

Mark	No.	Description	Part No.
	1-1	Owner's Manual	CRB1798
	1-2	Owner's Manual/PA/FRE	CRB1783
	1-3	Owner's Manual	CRB1796
	1-4	Owner's Manual/PA/FRE	CRB1797
	1-5	Installation Manual	CRD3650
	1-6	Owner's Manual	CRD3661
*	1-8	Card	ARY1048
	1-9	Polyethylene Bag	CEG1116
	2	Cord Assy	CDE7062
	3	Accessory Assy	CEA2913
	4	Angle	CNC5619
*	5	Polyethylene Bag	E36-637
	6	Cord Assy	CDE7024
	7	•••••	
	8	Accessory Assy	CEA2536
	9	Polyethylene Bag	CEG1011
	10	Battery	CEX1021
	11	Connector	CKX1049
	12	Sheet	CNM6370
	13	Holder	CNS5606
	14	•••••	
	15	Cord Clamper Assy	CEA2776
	16	•••••	
	17	Screw Assy	CEA2896
	18	Screw	BMZ50P060FZK
	19	Screw	CMZ50P060FMC
*	20	Polyethylene Sheet	CNM4338
	21	Sheet	CZN5435
	22	Polyethylene Bag	CEG1173
	23	Carton	CHG4738
	24	Sub Carton	CHG4392
	25	Contain Box	CHL4738
	26	Protector	CHP2383
	27	Protector	CHP2384
	28	Protector	CHP2386
	29	Protector	CHP2387
	30	Microphone Assy	CPM1048
	31	Remote Control Assy	CXB9118
	32	GPS Antenna Assy	CXB9354
	33	Water Proof Pad	CZN5442
	34	DVD-ROM	CPJ1143
	35	Screw Assy	CEA2938
	36	Screw(M6x16)	CBA1295
*	37	Polyethylene Bag	E36-613

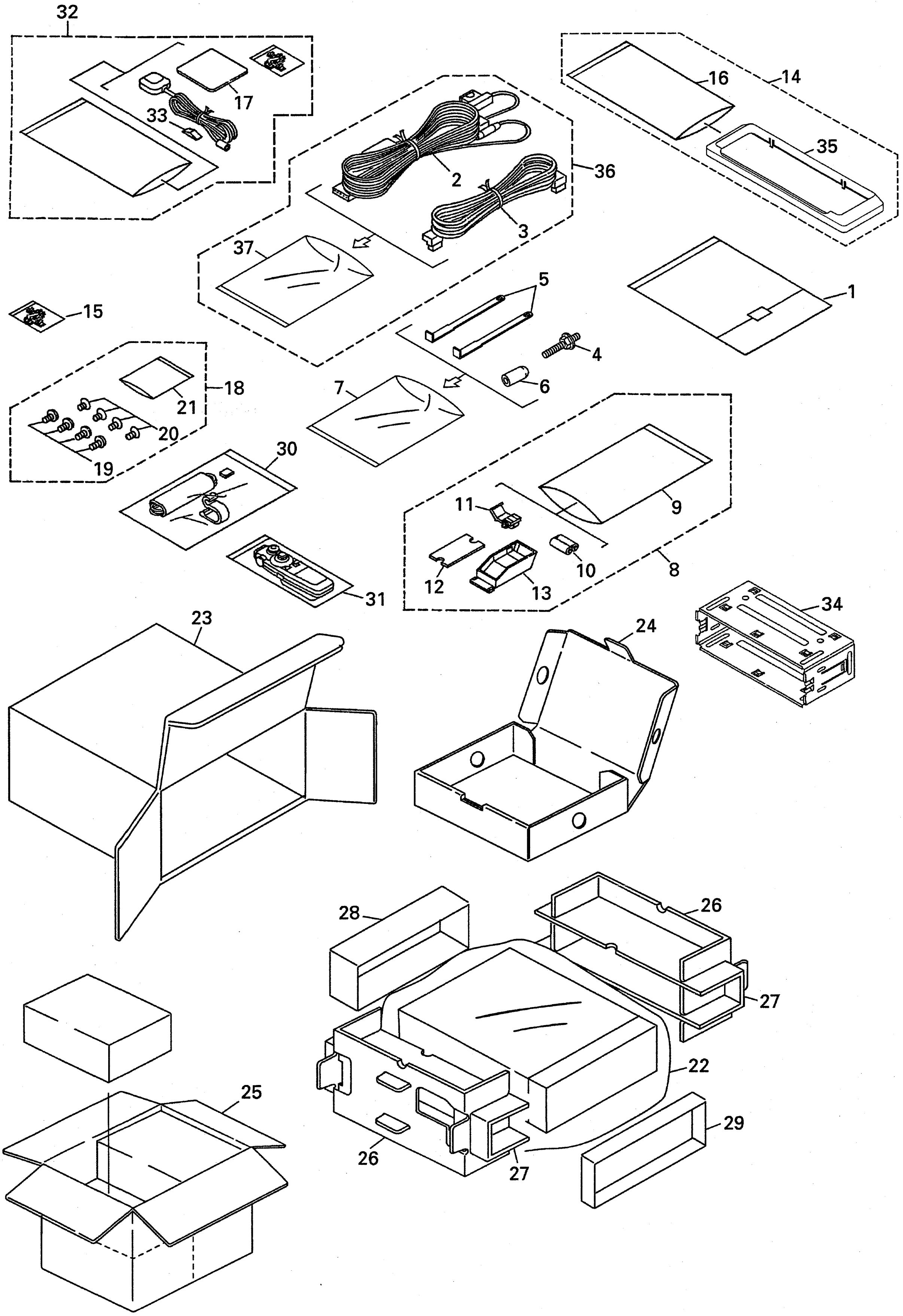
● Owner's Manual

Part No.	Language
CRD3661	English, French
CRB1798	English
CRB1783	French
CRB1796	English
CRB1797	French

● Installation Manual

Part No.	Language
CRD3650	English, French

2.2 PACKING (AVIC-9DVDII/EW)



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● PACKING (AVIC-9DVDII/EW) SECTION PARTS LIST

Mark	No.	Description	Part No.
	1-1	Installation Manual	CRD3647
	1-2	Owner's Manual/PEE/ENG	CRB1776
	1-3	Owner's Manual/PEE/SPE	CRB1777
	1-4	Owner's Manual/PEE/GER	CRB1778
	1-5	Owner's Manual/PEE/FRE	CRB1779
	1-6	Owner's Manual/PEE/ITA	CRB1780
	1-7	Owner's Manual/PEE/DUT	CRB1781
	1-8	Owner's Manual/PEE/ENG	CRB1790
	1-9	Owner's Manual/PEE/SPE	CRB1791
	1-10	Owner's Manual/PEE/GER	CRB1792
	1-11	Owner's Manual/PEE/FRE	CRB1793
	1-12	Owner's Manual/PEE/ITA	CRB1794
	1-13	Owner's Manual/PEE/DUT	CRB1795
*	1-14	Warranty Card	CRY1157
	1-15	Passport	CRY1013
*	1-16	Polyethylene Bag	E36-634
	2	Cord Assy	CDE7062
	3	Cord Assy	CDE7024
	4	Screw	CBA1002
	5	Handle	CNC5395
	6	Bush	CNV3930
*	7	Polyethylene Bag	E36-615
	8	Accessory Assy	CEA2536
	9	Polyethylene Bag	CEG1011
	10	Battery	CEX1021
	11	Connector	CKX1049
	12	Sheet	CNM6370
	13	Holder	CNS5606
	14	Accessory Assy	CEA3331
	15	Cord Clamper Assy	CEA2776
*	16	Polyethylene Bag	CEG-158
	17	Sheet	CZN5435
	18	Screw Assy	CEA2896
	19	Screw	BMZ50P060FZK
	20	Screw	CMZ50P060FMC
*	21	Polyethylene Sheet	CNM4338
	22	Polyethylene Bag	CEG-162
	23	Carton	CHG4736
	24	Sub Carton	CHG4392
	25	Contain Box	CHL4736
	26	Protector	CHP2383
	27	Protector	CHP2384
	28	Protector	CHP2386
	29	Protector	CHP2387
	30	Microphone Assy	CPM1048
	31	Remote Control Assy	CXB9118
	32	GPS Antenna Assy	CXB9354
	33	Water Proof Pad	CZN5442
	34	Holder	CNC8659
	35	Panel	CNS6552
	36	Accessory Assy	CEA3332
	37	Polyethylene Bag	CEG1042

● Owner's Manual

Part No.	Language
CRB1776, CRB1790	English
CRB1777, CRB1791	Spanish
CRB1778, CRB1792	German
CRB1779, CRB1793	French
CRB1780, CRB1794	Italian
CRB1781, CRB1795	Dutch

● Installation Manual

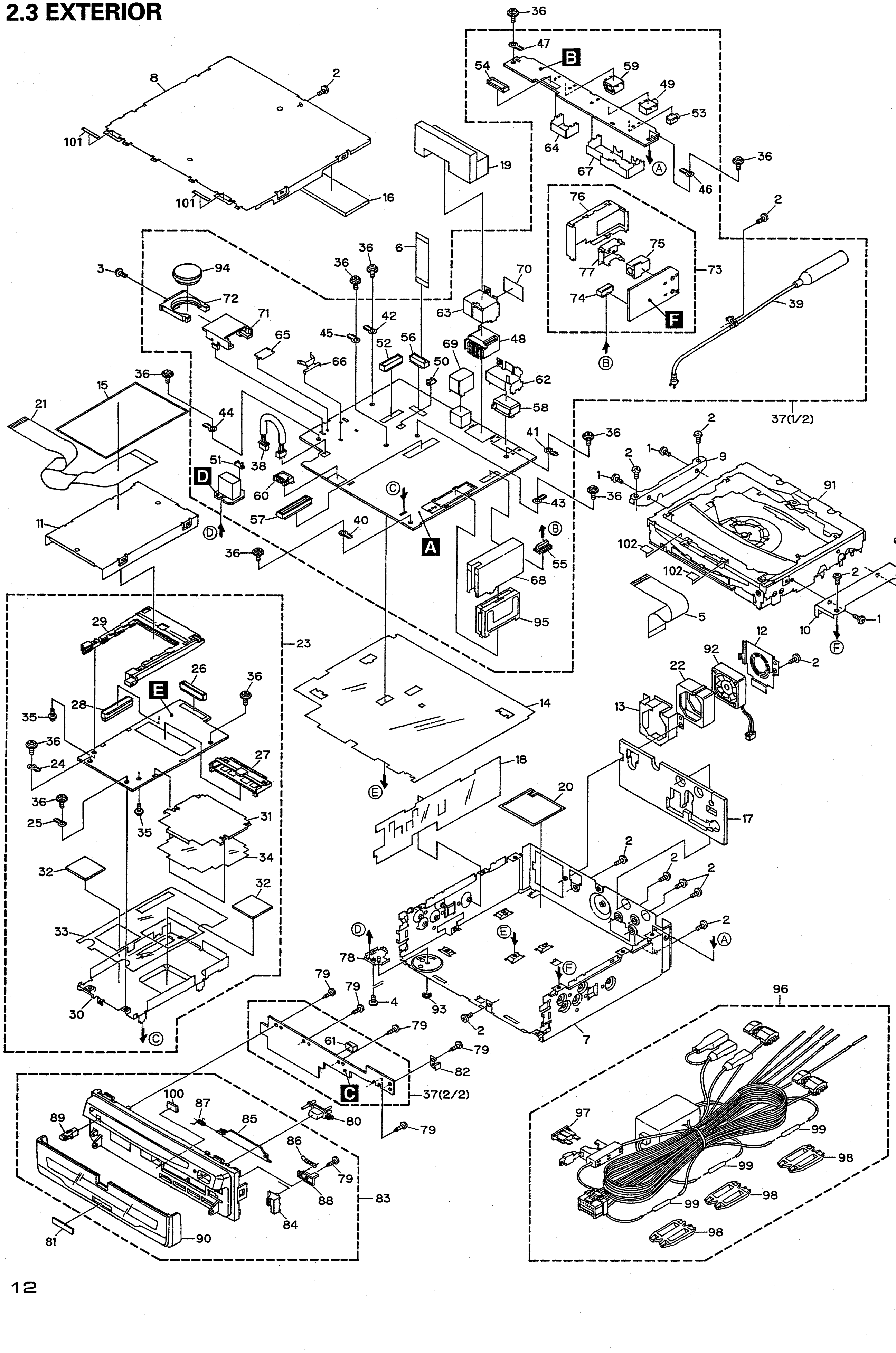
Part No.	Language
CRD3647	English, Spanish, German, French, Italian, Dutch

As materials for on-site adjustment, the following items are contained in the package:

CRB1776, CRB1790 (Owner's manual in English) *A
CRD3647 (Installation manual in English, Spanish, German, French, Italian and Dutch) *A
CRB1777, CRB1791 (Owner's manual in Spanish) *B
CRD3647 (Installation manual in English, Spanish, German, French, Italian and Dutch) *B
CRB1778, CRB1792 (Owner's manual in German) *C
CRD3647 (Installation manual in English, Spanish, German, French, Italian and Dutch) *C
CRB1779, CRB1793 (Owner's manual in French) *D
CRD3647 (Installation manual in English, Spanish, German, French, Italian and Dutch) *D
CRB1780, CRB1794 (Owner's manual in Italian) *E
CRD3647 (Installation manual in English, Spanish, German, French, Italian and Dutch) *E
CRB1781, CRB1795 (Owner's manual in Dutch) *F
CRD3647 (Installation manual in English, Spanish, German, French, Italian and Dutch) *F

When the products are shipped from our factory, the above manuals are not included. A pair of manuals (*A, *B, *C, *D, *E, or *F) will be attached to the product package on the site (PEE) according to the language used in the country or area to which the product is delivered.

2.3 EXTERIOR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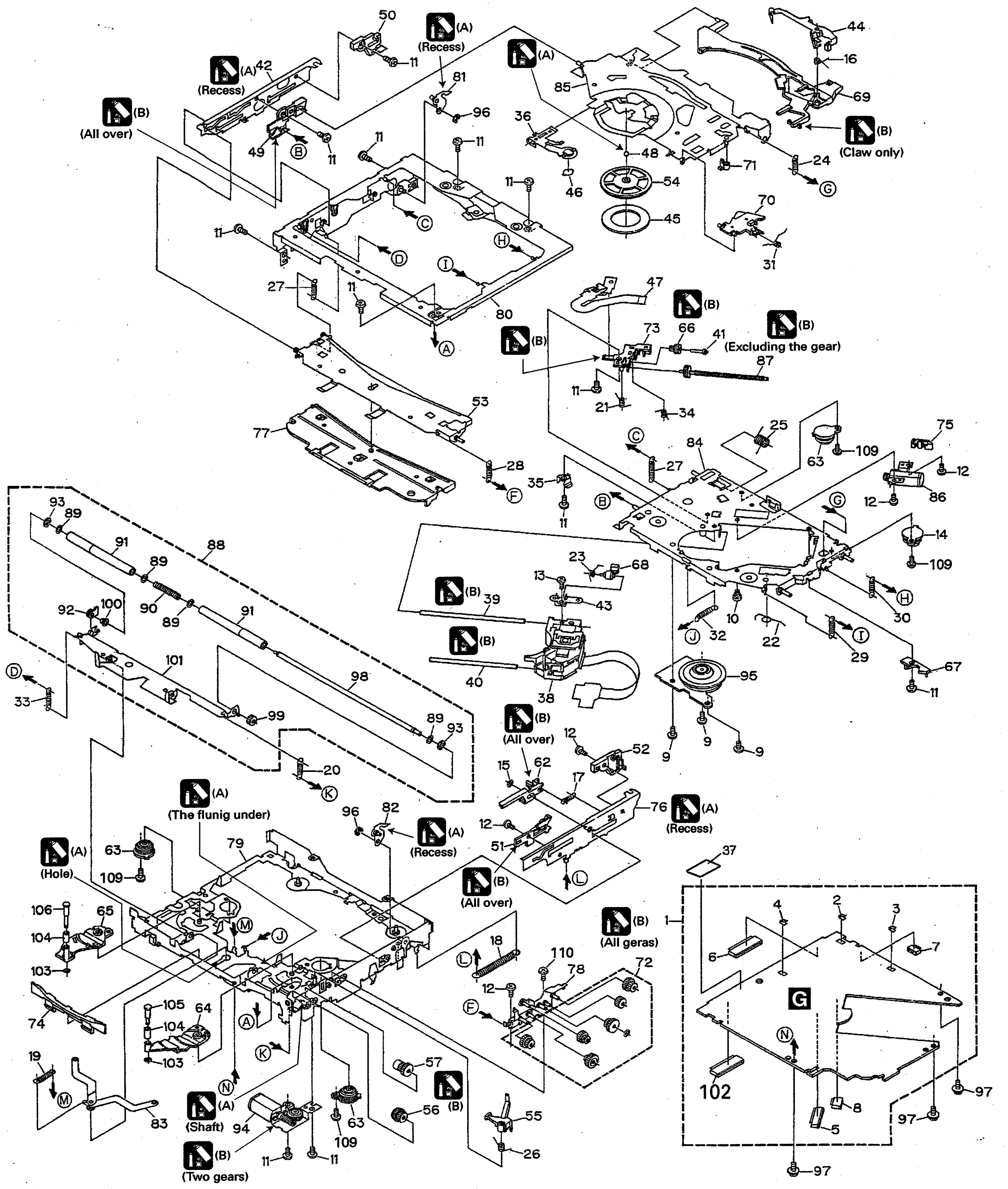
● EXTERIOR SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	Screw	BMZ20P025FMC
	2	Screw	BMZ26P040FMC
	3	Screw(M2.6x4)	CBA1013
	4	Screw(M3x3)	CBA1534
	5	FFC	CDE6529
	6	FFC	CDE6530
	7	Chassis(UC MODEL)	CNA2418
		Chassis(EW MODEL)	CNA2555
	8	Case	CNB2712
	9	Bracket	CNC9280
	10	Bracket	CNC9281
	11	Shield	CNC9643
	12	Holder	CNC9719
	13	Holder	CNC9720
	14	Insulator	CNM7186
	15	Insulator	CNM7597
	16	Cushion	CNM7442
	17	Cushion	CNM7459
	18	Insulator	CNM7460
	19	Cushion	CNM7461
	20	Insulator	CNM7506
	21	PCB	CNP6231
	22	Cover	CNV6912
	23	CC Unit(UC MODEL)	CWM8391
		CC Unit(EW MODEL)	CWM8390
	24	Terminal(CN99)	CKF1064
	25	Terminal(CN100)	CKF1064
	26	Connector(CN2)	CKS3930
	27	Connector(CN901)	CKS4070
	28	Connector(CN302)	CKS4429
	29	Connector	CKS4434
	30	Shield	CNC9267
	31	Shield	CNC9485
	32	Sheet	CNM7902
	33	Insulator	CNM7456
	34	Insulator	CNM7532
	35	Screw	IMS20P060FCR
	36	Screw	IMS26P030FMC
	37	Main Unit(UC MODEL)	CWM8484
		Main Unit(EW MODEL)	CWM8482
	38	Cord Assy(CN555)	CDE5955
	39	Antenna Cable(CN551)(EW MODEL)	CDH1304
	40	Terminal(CN553)	CKF1064
	41	Terminal(CN554)	CKF1064
	42	Terminal(CN1803)	CKF1064
	43	Terminal(CN3258)	CKF1064
	44	Terminal(CN3259)	CKF1064
	45	Terminal(CN3903)	CKF1064
	46	Terminal(CN5006)	CKF1064
	47	Terminal(CN5007)	CKF1064
	48	Connector(CN1801)	CKM1341
	49	Jack(CN5005)	CKN1035
	50	Connector(CN1802)	CKS3124
	51	Connector(CN556)	CKS3125
	52	Connector(CN3251)	CKS3751
	53	Connector(CN5001)	CKS3759
	54	Connector(CN5004)	CKS3991
	55	Connector(CN552)	CKS4065
	56	Connector(CN3901)	CKS4361
	57	Connector(CN3254)	CKS4430
	58	Connector(CN3257)	CKS4463
	59	Connector(CN5002)	CKS4473
	60	Connector(CN660)	CKS4518
	61	Connector(CN2851)	CKS4519
	62	Holder	CNC9270
	63	Holder	CNC9271
	64	Holder	CNC9272
	65	Holder	CNC9474
	66	Holder	CNC9475
	67	Holder	CNC9477
	68	Shield(EW MODEL)	CNC9533
	69	Shield	CNC9635
	70	Insulator	CNM7535
	71	Holder	CNV6763
	72	Holder	CNV6764
	73	GPS Unit(UC MODEL)	CWX2591
		GPS Unit(EW MODEL)	CWX2590
	74	Connector(CN461)	CKS4280
	75	Connector(CN504)	CKS4432
	76	Shield	CNC9191
	77	Holder	CNC9252
	78	Holder Unit	CXB7069
	79	Screw	BPZ20P050FMC
	80	Button(EJECT)	CAC7005
*	81	Badge	CAH1754
	82	Earth Plate	CNC9476
	83	Grille Unit(UC MODEL)	CXB9390
		Grille Unit(EW MODEL)	CXB8500
	84	Button(PC-CARD)	CAC7105
	85	Door	CAT2285
	86	Spring	CBH2258
	87	Spring	CBH2499
	88	Holder	CNV6794
	89	Latch Unit	CXB3967
	90	Door Unit(UC MODEL)	CXB7566
		Door Unit(EW MODEL)	CXB7277
	91	DVD Mechanism Module(MS2)	CXK6160
	92	Fan Motor	CXM1192
	93	Washer	YE20FUC
*	94	Battery	CEX1068
	95	Tuner Unit(FE551)(EW MODEL)	CWE1622
	96	Cord Assy	CDE7062
	97	Fuse(7.5A)	CEK1135
	98	Cap	CNS1472
	99	Resistor	RS1/2PMF102J
	100	Sheet	CNM7595
	101	Sheet	CNM7670
	102	Sheet	CNM7671

2.4 DVD MECHANISM MODULE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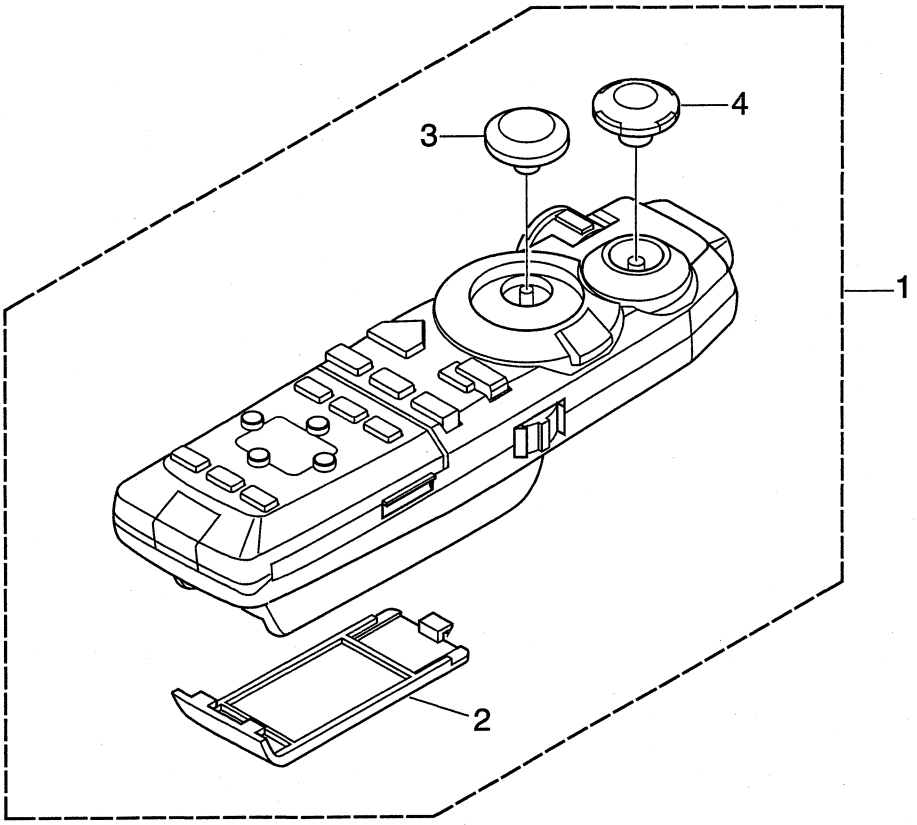
(A) : GEM1024
(B) : GEM1040

● DVD MECHANISM MODULE SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	DVD Core Unit	CWX2727
	2	Terminal(CN1703)	CKF1065
	3	Terminal(CN1705)	CKF1065
	4	Terminal(CN1706)	CKF1065
	5	Connector(CN1100)	CKS3749
	6	Connector(CN1701)	CKS4052
	7	Connector(CN1700)	CKS4374
	8	Connector(CN1300)	CKS4507
	9	Screw(M2x3)	CBA1486
	10	Screw	CBA1535
	11	Screw(M2x2.2)	CBA1547
	12	Screw(M2x2.2)	CBA1548
	13	Screw(M1.4x2)	CBA1549
	14	Damper	CNV6927
	15	Washer	CBF1038
	16	Spring	CBH2394
	17	Spring	CBH2395
	18	Spring	CBH2396
	19	Spring	CBH2397
	20	Spring	CBH2622
	21	Spring	CBH2399
	22	Spring	CBH2400
	23	Spring	CBH2401
	24	Spring	CBH2402
	25	Spring	CBH2403
	26	Spring	CBH2404
	27	Spring	CBH2405
	28	Spring	CBH2406
	29	Spring	CBH2407
	30	Spring	CBH2408
	31	Spring	CBH2410
	32	Spring	CBH2411
	33	Spring	CBH2413
	34	Spring	CBH2414
	35	Spring	CBL1499
	36	Spring	CBL1500
	37	Sheet	CNM7590
	38	Pickup Unit(Service)(DP4)	CXX1530
	39	Shaft	CLA3878
	40	Shaft	CLA3879
	41	Shaft	CLA3881
	42	Lever	CNC8988
	43	Bracket	CNC8992
	44	Arm	CNC8994
	45	Sheet	CNM6883
	46	Sheet	CNM6884
	47	PCB	CNP5971
	48	Ball	CNR1189
	49	Guide	CNV6352
	50	Guide	CNV6353
	51	Guide	CNV6354
	52	Guide	CNV6355
	53	Guide	CNV6356
	54	Clamper	CNV6357
	55	Arm	CNV6358
	56	Gear	CNV6361
	57	Gear	CNV6362
	58-61	•••••	
	62	Rack	CNV6367
	63	Damper	CNV6368
	64	Arm	CNV6369
	65	Arm	CNV6370
	66	Gear	CNV6372
	67	Holder	CNV6374
	68	Rack	CNV6376
	69	Arm	CNV6377
	70	Arm	CNV6378
	71	Arm	CNV6379
	72	Gear Unit	CXB5959
	73	Holder	CNV6383
	74	Guide	CNV6384
	75	Holder	CNV6385
	76	Lever Unit	CXB5943
	77	Holder Unit	CXB5944
*	78	Holder Unit	CXB5947
	79	Frame Unit	CXB5948
	80	Frame Unit	CXB5949
	81	Arm Unit	CXB5950
	82	Arm Unit	CXB5951
	83	Arm Unit	CXB5952
	84	Chassis Unit	CXB5953
	85	Arm Unit	CXB5954
	86	Motor Unit(CRG)	CXB5955
	87	Screw Unit	CXB5957
	88	Roller Unit	CXB5958
	89	Washer	CBF1060
	90	Spring	CBH2170
	91	Roller	CNV6068
	92	Holder	CNV6210
	93	Washer	YE20FUC
	94	Motor Unit(LOAD)	CXB5960
	95	Motor Unit(SPDL)	CXB6218
	96	Washer	YE15FUC
	97	Screw	IMS20P030FMC
*	98	Shaft	CLA3877
*	99	Gear	CNV6359
*	100	Collar	CNV6382
*	101	Arm Unit	CXB5945
	102	Connector(CN1401)	CKS4052
	103	Washer	CBF1087
	104	Roller	CNV6928
	105	Shaft	CLA4180
	106	Shaft	CLA4181
	107,108	•••••	
	109	Screw (M2x3.5)	CBA1560
	110	Screw (M2x2.2)	CBA1419

2.5 REMOTE CONTROL ASSY

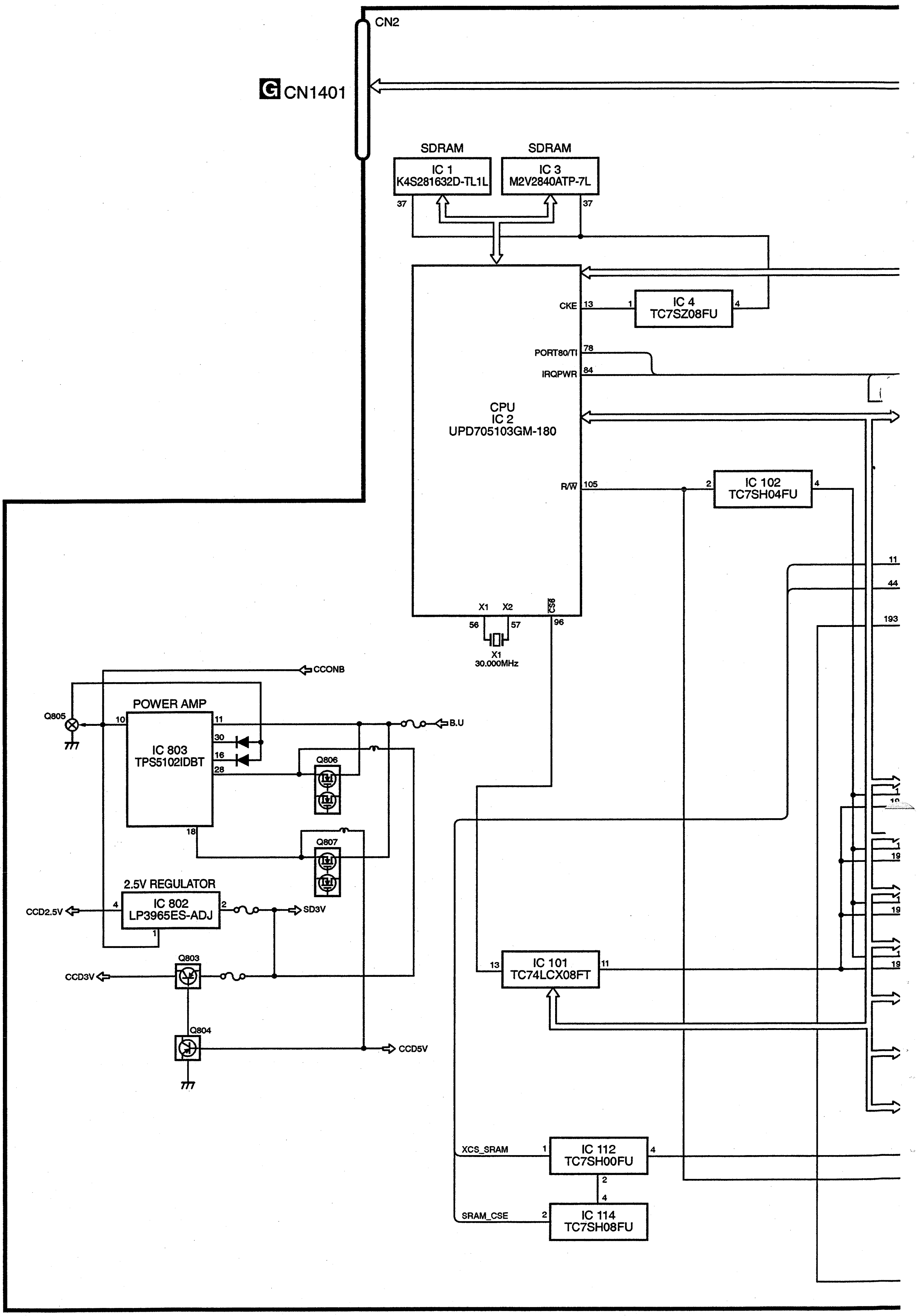


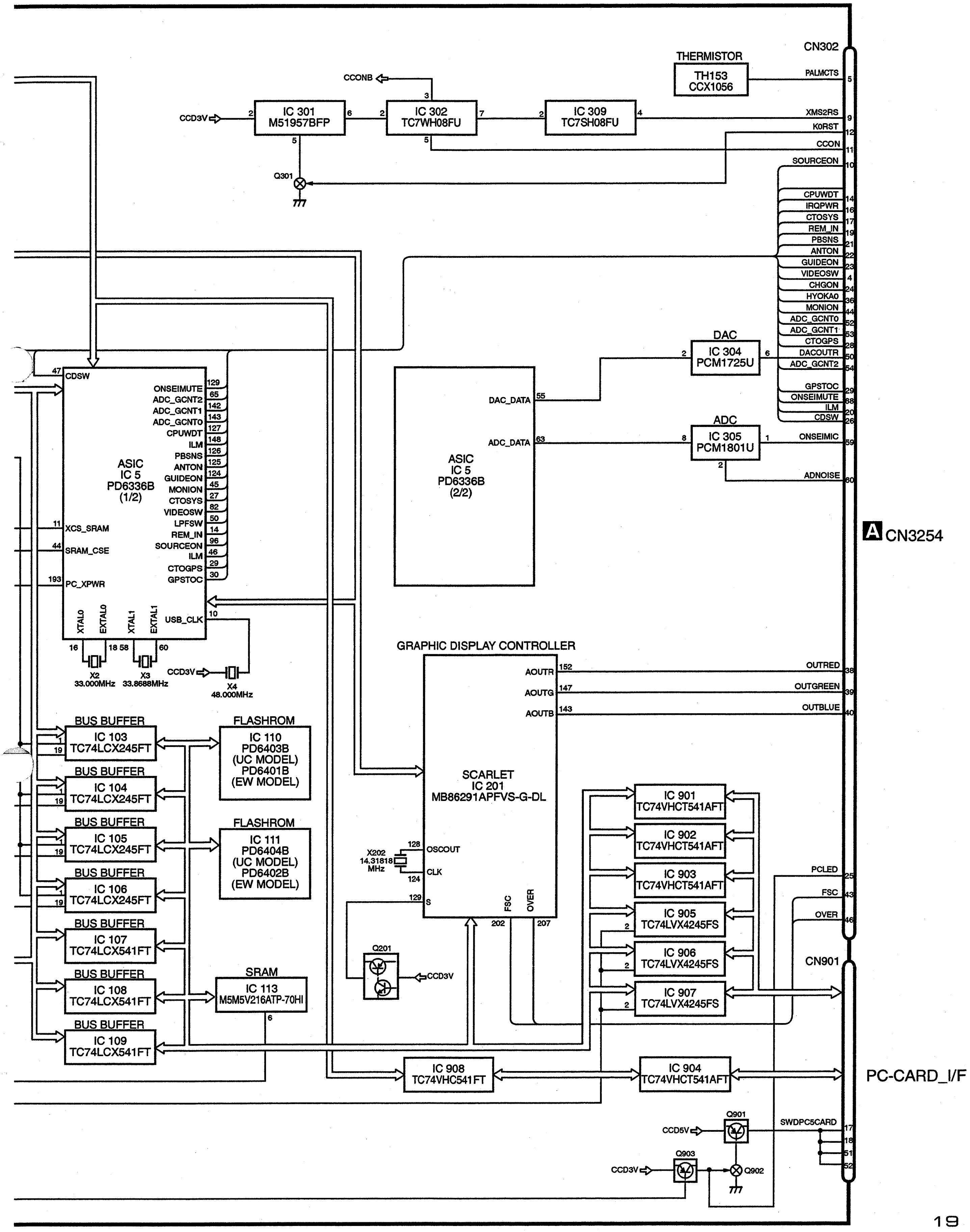
● REMOTE CONTROL ASSY SECTION PARTS LIST

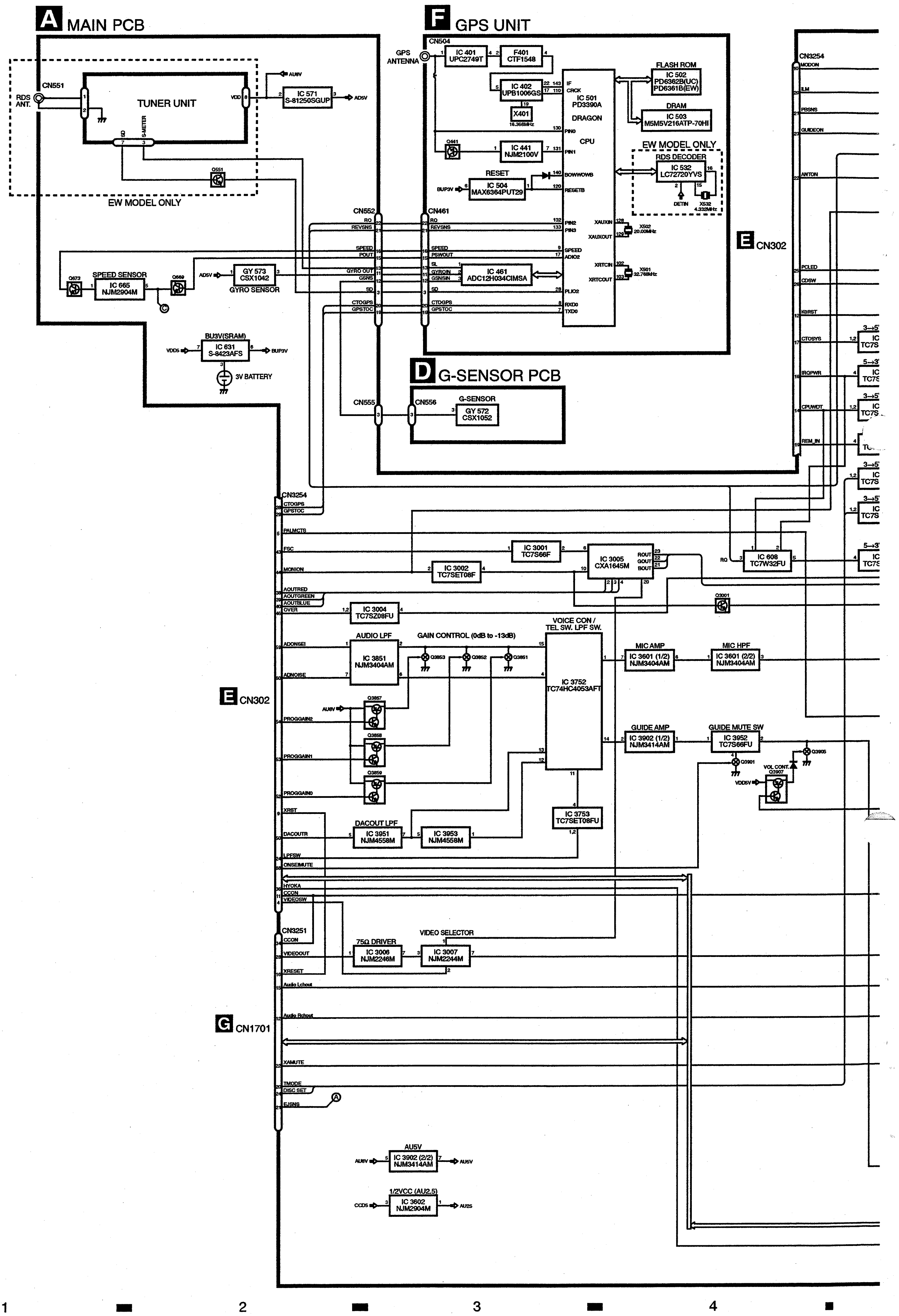
Mark	No.	Description	Part No.
	1	Remote Control Assy	CXB9118
	2	Cover	CZN5432
	3	Scroll Stick	CZA5047
	4	3D View Stick	CZA5085

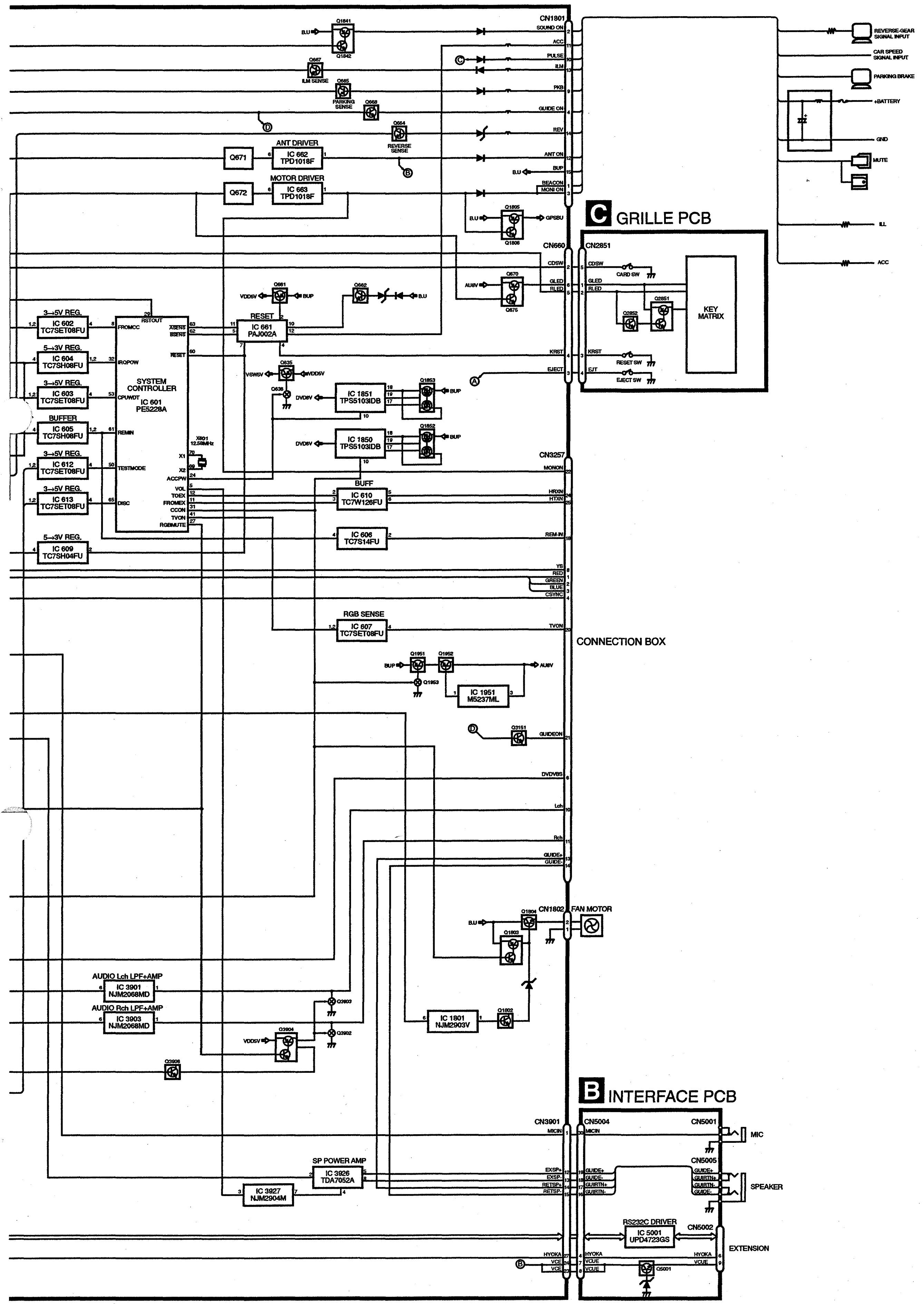
3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

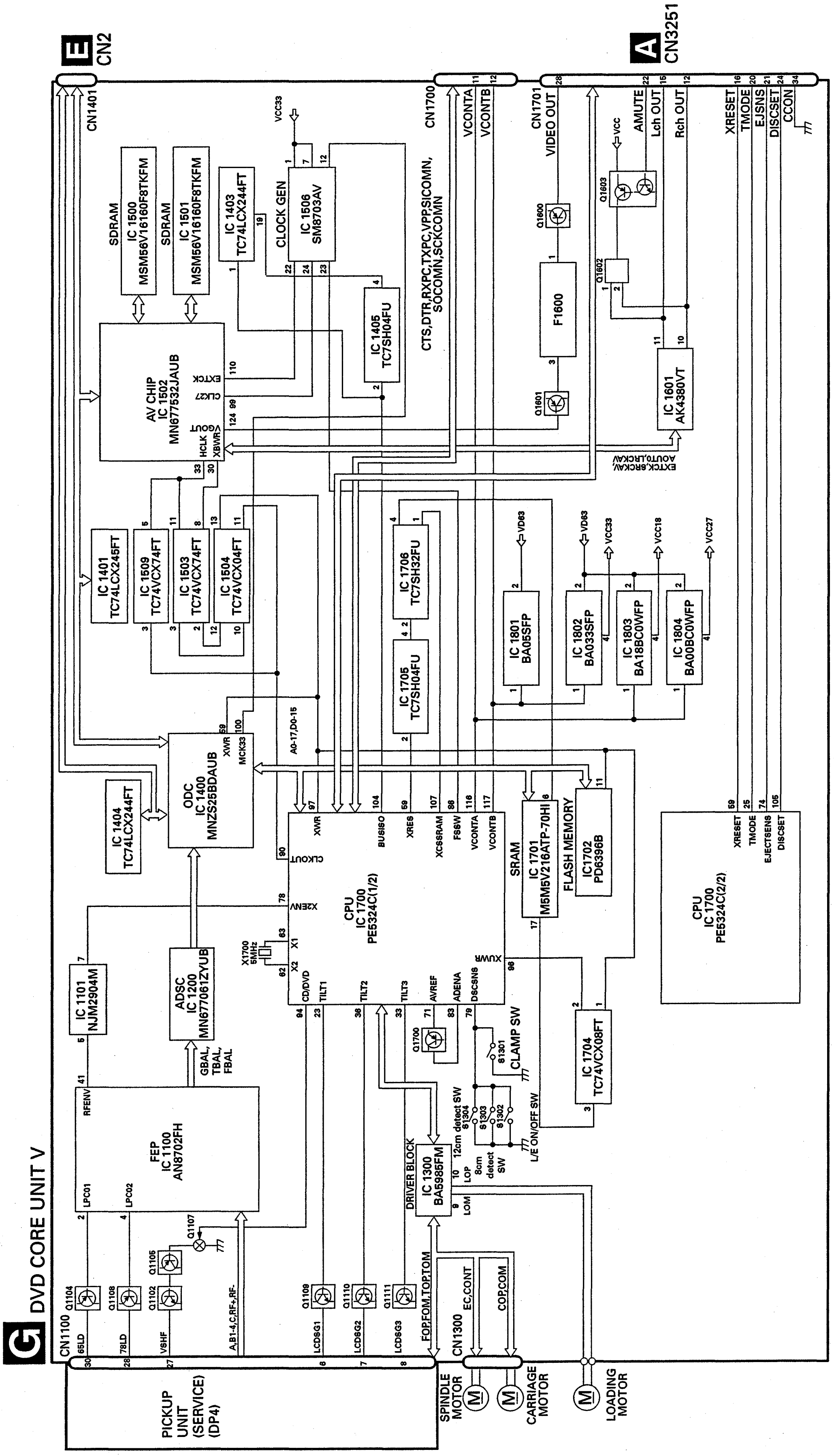
3.1 BLOCK DIAGRAM


A
B
C
D
E CC UNIT
CN2
G CN1401
SDRAM
IC 1
K4S281632D-TL1L
37
SDRAM
IC 3
M2V2840ATP-7L
37
CKE
13
1
IC 4
TC7SZ08FU
4
PORT80/TI
78
IRQPWR
84
CPU
IC 2
UPD705103GM-180
R/W
105
2
IC 102
TC7SH04FU
4
11
44
193
X1
X2
CS6
56
57
96
X1
30.000MHz
CCONB
Q805
POWER AMP
10
11
30
16
28
IC 803
TPS5102IDBT
18
B.U
Q806
Q807
2.5V REGULATOR
CCD2.5V
4
IC 802
LP3965ES-ADJ
2
1
SD3V
Q803
CCD3V
Q804
CCD5V
13
IC 101
TC74LCX08FT
11
19
19
19
XCS_SRAM
1
IC 112
TC7SH00FU
4
2
4
SRAM_CSE
2
IC 114
TC7SH08FU


THERMISTOR
TH153
CCX1056
CN302
CCONB
IC 301
M51957BFP
IC 302
TC7WH08FU
IC 309
TC7SH08FU
CCD3V
Q301
PALMCTS
XMS2RS
KORST
CCON
SOURCEON
CPUWDT
IRQPWR
CTOSYS
REM_IN
PBSNS
ANTON
GUIDEON
VIDEOSW
CHGON
HYOKA0
MONION
ADC_GCNT0
ADC_GCNT1
CTOGPS
DACOUTR
ADC_GCNT2
GPSTOC
ONSEIMUTE
ILM
CDSW
DAC
IC 304
PCM1725U
ADC
IC 305
PCM1801U
ONSEIMIC
ADNOISE
ASIC
IC 5
PD6336B
(1/2)
CDSW
XCS_SRAM
SRAM_CSE
PC_XPWR
ONSEIMUTE
ADC_GCNT2
ADC_GCNT1
ADC_GCNT0
CPUWDT
ILM
PBSNS
ANTON
GUIDEON
MONION
CTOSYS
VIDEOSW
LPFSW
REM_IN
SOURCEON
ILM
CTOGPS
GPSTOC
USB_CLK
XTAL0
EXTAL0
XTAL1
EXTAL1
X2
33.000MHz
X3
33.8688MHz
X4
48.000MHz
ASIC
IC 5
PD6336B
(2/2)
DAC_DATA
ADC_DATA
A CN3254
GRAPHIC DISPLAY CONTROLLER
SCARLET
IC 201
MB86291APFVS-G-DL
AOUTR
AOUTG
AOUTB
OSCOUT
CLK
S
FSC
OVER
X202
14.31818
MHz
Q201
OUTRED
OUTGREEN
OUTBLUE
BUS BUFFER
IC 103
TC74LCX245FT
BUS BUFFER
IC 104
TC74LCX245FT
BUS BUFFER
IC 105
TC74LCX245FT
BUS BUFFER
IC 106
TC74LCX245FT
BUS BUFFER
IC 107
TC74LCX541FT
BUS BUFFER
IC 108
TC74LCX541FT
BUS BUFFER
IC 109
TC74LCX541FT
FLASHROM
IC 110
PD6403B
(UC MODEL)
PD6401B
(EW MODEL)
FLASHROM
IC 111
PD6404B
(UC MODEL)
PD6402B
(EW MODEL)
SRAM
IC 113
M5M5V216ATP-70HI
IC 901
TC74VHCT541AFT
IC 902
TC74VHCT541AFT
IC 903
TC74VHCT541AFT
IC 905
TC74LVX4245FS
IC 906
TC74LVX4245FS
IC 907
TC74LVX4245FS
PCLED
FSC
OVER
CN901
IC 908
TC74VHC541FT
IC 904
TC74VHCT541AFT
PC-CARD_I/F
Q901
SWDPC5CARD
CCD5V
Q903
CCD3V
Q902

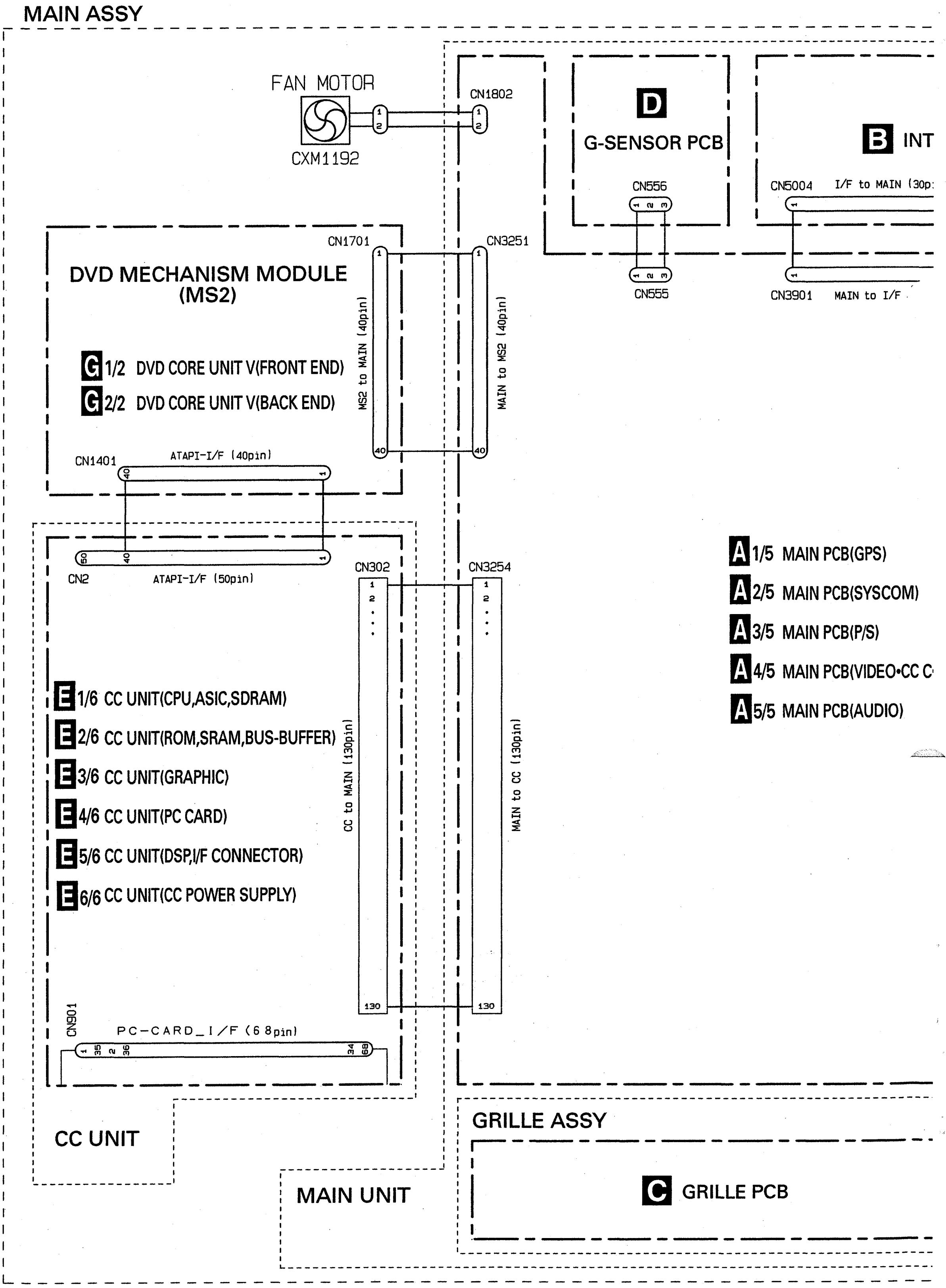

1
2
3
4
A
B
C
D
A MAIN PCB
F GPS UNIT
D G-SENSOR PCB
E CN302
G CN1701
CN551
RDS ANT.
TUNER UNIT
VDD
SD
S-METER
EW MODEL ONLY
Q551
IC 571
S-81250SGUP
AU8V
AD5V
CN552
RQ
REVSNS
SPEED
POUT
GYRO OUT
GSNS
SD
CTOGPS
GPSTOC
SPEED SENSOR
IC 665
NJM2904M
Q673
Q669
GY 573
CSX1042
GYRO SENSOR
BU3V(SRAM)
IC 631
S-8423AFS
VDD5
BUP3V
3V BATTERY
CN555
CN504
GPS ANTENNA
IC 401
UPC2749T
F401
CTF1548
IC 402
UPB1006GS
X401
16.368MHz
Q441
IC 441
NJM2100V
RESET
IC 504
MAX6364PUT29
IC 501
PD3390A
DRAGON
CPU
IF
CRCK
PIN0
PIN1
BOWWOWB
RESETB
PIN2
PIN3
SPEED
ADIO2
PLIO2
RXD0
TXD0
XAUXIN
XAUXOUT
X502
20.00MHz
XRTCIN
XRTCOUT
X501
32.768kHz
FLASH ROM
IC 502
PD6362B(UC)
PD6361B(EW)
DRAM
IC 503
M5M5V216ATP-70HI
EW MODEL ONLY
RDS DECODER
IC 532
LC72720YVS
DETIN
X532
4.332MHz
CN461
RQ
REVSNS
SPEED
PSWOUT
SL
GYROIN
GSNSIN
SD
CTOGPS
GPSTOC
IC 461
ADC12H034CIMSA
CN556
G-SENSOR
GY 572
CSX1052
E CN302
CN3254
MODON
ILM
PBSNS
GUIDEON
ANTON
PCLED
CDSW
KDRST
CTOSYS
IRGPWR
CPUWDT
REM_IN
3→5
IC
TC7S
5→3
CN3254
CTOGPS
GPSTOC
PALMCTS
FSC
MONION
AOUTRED
AOUTGREEN
AOUTBLUE
OVER
ADONSEI
ADNOISE
PROGGAIN2
PROGGAIN1
PROGGAIN0
XRST
DACOUTR
LPFSW
ONSEIMUTE
HYOKA
CCON
VIDEOSW
IC 3001
TC7S66F
IC 3002
TC7SET08F
IC 3005
CXA1645M
ROUT
GOUT
BOUT
RQ
IC 608
TC7W32FU
IC 3004
TC7SZ08FU
Q3001
AUDIO LPF
IC 3851
NJM3404AM
GAIN CONTROL (0dB to -13dB)
Q3853
Q3852
Q3851
VOICE CON / TEL SW. LPF SW.
IC 3752
TC74HC4053AFT
MIC AMP
IC 3601 (1/2)
NJM3404AM
MIC HPF
IC 3601 (2/2)
NJM3404AM
AU8V
Q3857
Q3858
Q3859
GUIDE AMP
IC 3902 (1/2)
NJM3414AM
GUIDE MUTE SW
IC 3952
TC7S66FU
Q3905
Q3901
VOL CONT.
Q3907
VDD5V
IC 3753
TC7SET08FU
DACOUT LPF
IC 3951
NJM4558M
IC 3953
NJM4558M
CN3251
CCON
VIDEOOUT
XRESET
Audio Lchout
Audio Rchout
75Ω DRIVER
IC 3006
NJM2246M
VIDEO SELECTOR
IC 3007
NJM2244M
XAMUTE
TMODE
DISC SET
EJSNS
AU5V
IC 3902 (2/2)
NJM3414AM
AU8V
AU5V
1/2VCC (AU2.5)
IC 3602
NJM2904M
CCD5
AU25

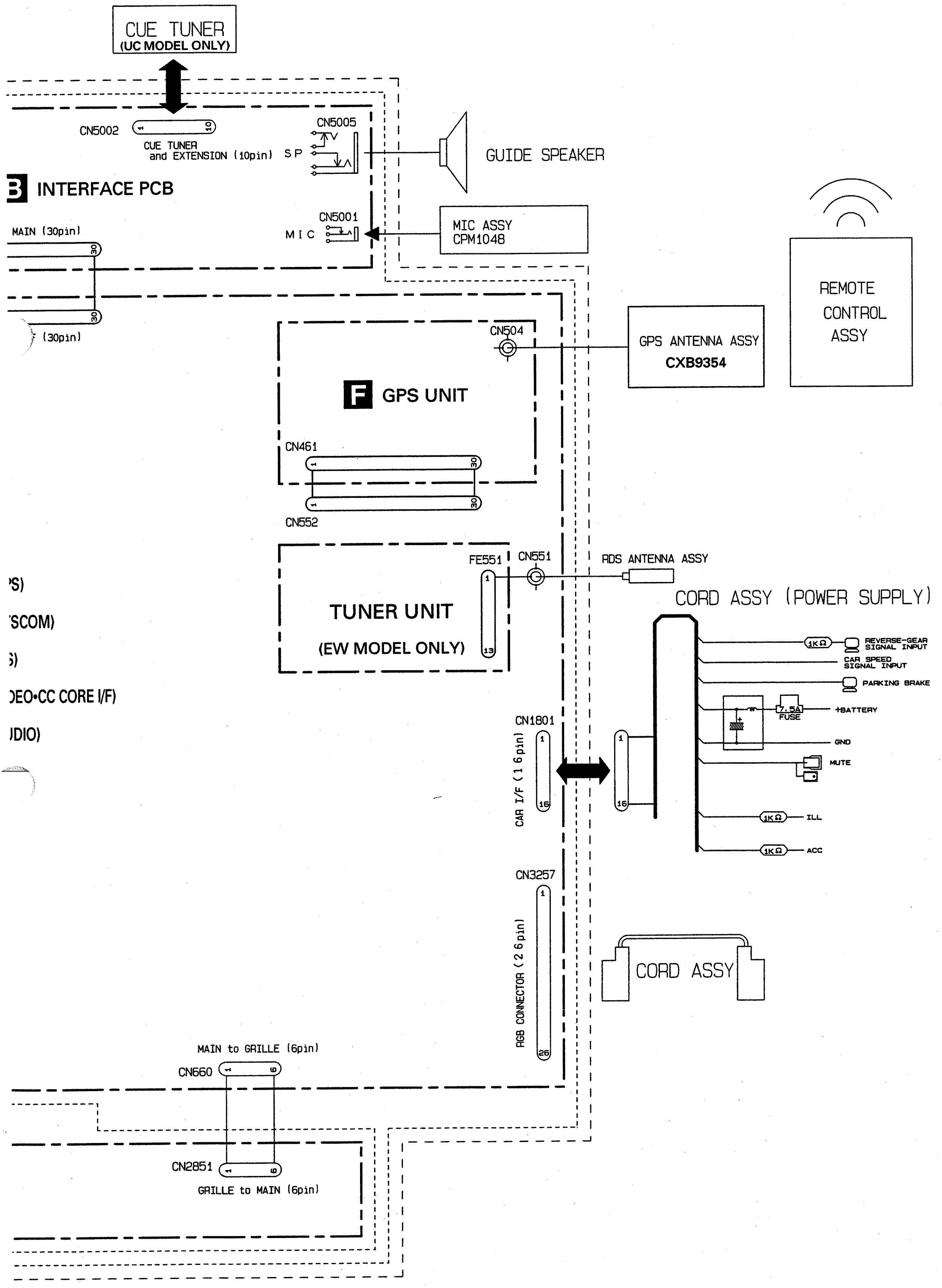

CN1801
SOUND ON
ACC
PULSE
ILM
PKB
GUIDE ON
REV
ANT ON
BUP
BEACON
MONI ON
B.U
Q1841
Q1842
Q667
ILM SENSE
Q665
PARKING SENSE
Q668
Q664
REVERSE SENSE
ANT DRIVER
IC 662
TPD1018F
MOTOR DRIVER
IC 663
TPD1018F
Q671
Q672
Q1805
Q1806
GPSBU
REVERSE-GEAR SIGNAL INPUT
CAR SPEED SIGNAL INPUT
PARKING BRAKE
+BATTERY
GND
MUTE
ILL
ACC
C GRILLE PCB
CN660
CN2851
CDSW
GLED
RLED
KRST
EJECT
EJT
CARD SW
RESET SW
EJECT SW
Q2851
Q2852
KEY MATRIX
Q670
Q676
AU8V
Q661
Q662
VDD5V
RESET
IC 661
PAJ002A
3→5V REG.
IC 602
TC7SET08FU
5→3V REG.
IC 604
TC7SH08FU
3→5V REG.
IC 603
TC7SET08FU
BUFFER
IC 605
TC7SH08FU
3→5V REG.
IC 612
TC7SET08FU
3→5V REG.
IC 613
TC7SET08FU
5→3V REG.
IC 609
TC7SH04FU
SYSTEM CONTROLLER
IC 601
PE5228A
RSTOUT
FROMCC
ASENS
BSENS
RESET
IRQPOW
CPUWDT
REMIN
TESTMODE
DISC
X1
X2
X801
12.58MHz
ACCPW
VOL
TOEX
FROMEX
CCON
TVON
RGBMUTE
Q635
Q636
VSW5V
DVD8V
IC 1851
TPS5103IDB
IC 1850
TPS5103IDB
Q1853
Q1852
CN3257
MONON
BUFF
IC 610
TC7W126FU
HRXN
HTXN
IC 606
TC7S14FU
REM-IN
YS
RED
GREEN
BLUE
CSYNC
RGB SENSE
IC 607
TC7SET08FU
TVON
CONNECTION BOX
Q1951
Q1952
Q1953
IC 1951
M5237ML
AU8V
Q3151
GUIDEON
DVDVBS
Lch
Rch
GUIDE+
GUIDE-
CN1802
FAN MOTOR
Q1804
Q1803
Q1802
IC 1801
NJM2903V
AUDIO Lch LPF+AMP
IC 3901
NJM2068MD
AUDIO Rch LPF+AMP
IC 3903
NJM2068MD
Q3903
Q3902
Q3904
Q3906
B INTERFACE PCB
CN3901
CN5004
CN5001
MICIN
MIC
CN5005
SPEAKER
SP POWER AMP
IC 3926
TDA7052A
IC 3927
NJM2904M
EXSP+
EXSP-
RETSP+
RETSP-
GUIDE+
GUIDE-
GUIRTN+
GUIRTN-
RS232C DRIVER
IC 5001
UPD4723GS
CN5002
EXTENSION
HYOKA
VCE
VCUE
Q5001
A
B
C
D


G DVD CORE UNIT V
E CN2
A CN3251
CN1401
CN1700
CN1701
VIDEO OUT
AMUTE
Lch OUT
Rch OUT
VCONTA
VCONTB
XRESET
TMODE
EJSNS
DISCSET
CCON
SDRAM IC 1500 MSM56V16160F8TKFM
SDRAM IC 1501 MSM56V16160F8TKFM
IC 1403 TC74LCX244FT
CLOCK GEN IC 1506 SM8703AV
VCC33
IC 1405 TC7SH04FU
CTS,DTR,RXPC,TXPC,VPP,SICOMN, SOCOMN,SCKCOMN
F1600
Q1600
Q1601
Q1602
Q1603
VCC
IC 1601 AK4380VT
EXTCK,SRCKAV, AOUT0,LRCKAV
AV CHIP IC 1502 MN677532JAUB
EXTCK
CLK27
VGOUT
HCLK
XBWR
IC 1401 TC74LCX245FT
IC 1509 TC74VCX74FT
IC 1503 TC74VCX74FT
IC 1504 TC74VCX04FT
IC 1706 TC7SH32FU
IC 1705 TC7SH04FU
IC 1801 BA05SFP
IC 1802 BA033SFP
IC 1803 BA18BC0WFP
IC 1804 BA00BC0WFP
VD63
VCC33
VCC18
VCC27
IC 1404 TC74LCX244FT
ODC IC 1400 MNZS25BDAUB
XWR
MCK33
A0-17,D0-15
CPU IC 1700 PE5324C(1/2)
XWR
BUSISO
XRES
XCSSRAM
FSSW
VCONTA
VCONTB
CLKOUT
X2ENV
X1
X2
X1700 5MHz
CD/DVD
TILT1
TILT2
TILT3
AVREF
ADENA
DSCSNS
XUWR
SRAM IC 1701 M5M5V216ATP-70HI
FLASH MEMORY IC1702 PD6396B
CPU IC 1700 PE5324C(2/2)
XRESET
TMODE
EJECTSENS
DISCSET
IC 1101 NJM2904M
ADSC IC 1200 MN677061ZYUB
GBAL, TBAL, FBAL
Q1700
CLAMP SW
S1301
IC 1704 TC74VCX08FT
12cm detect SW
S1304
S1303
S1302
L/E ON/OFF SW
8cm detect SW
DRIVER BLOCK IC 1300 BA5985FM
LOP
LOM
FEP IC 1100 AN8702FH
RFENV
LPC01
LPC02
Q1107
Q1104
Q1108
Q1102
Q1105
Q1109
Q1110
Q1111
CN1100
65LD
78LD
VSHF
A,B1-4,C,RF+,RF-
LCDSG1
LCDSG2
LCDSG3
FOP,FOM,TOP,TOM
CN1300
EC,CONT
COP,COM
PICKUP UNIT (SERVICE) (DP4)
SPINDLE MOTOR
CARRIAGE MOTOR
LOADING MOTOR
M

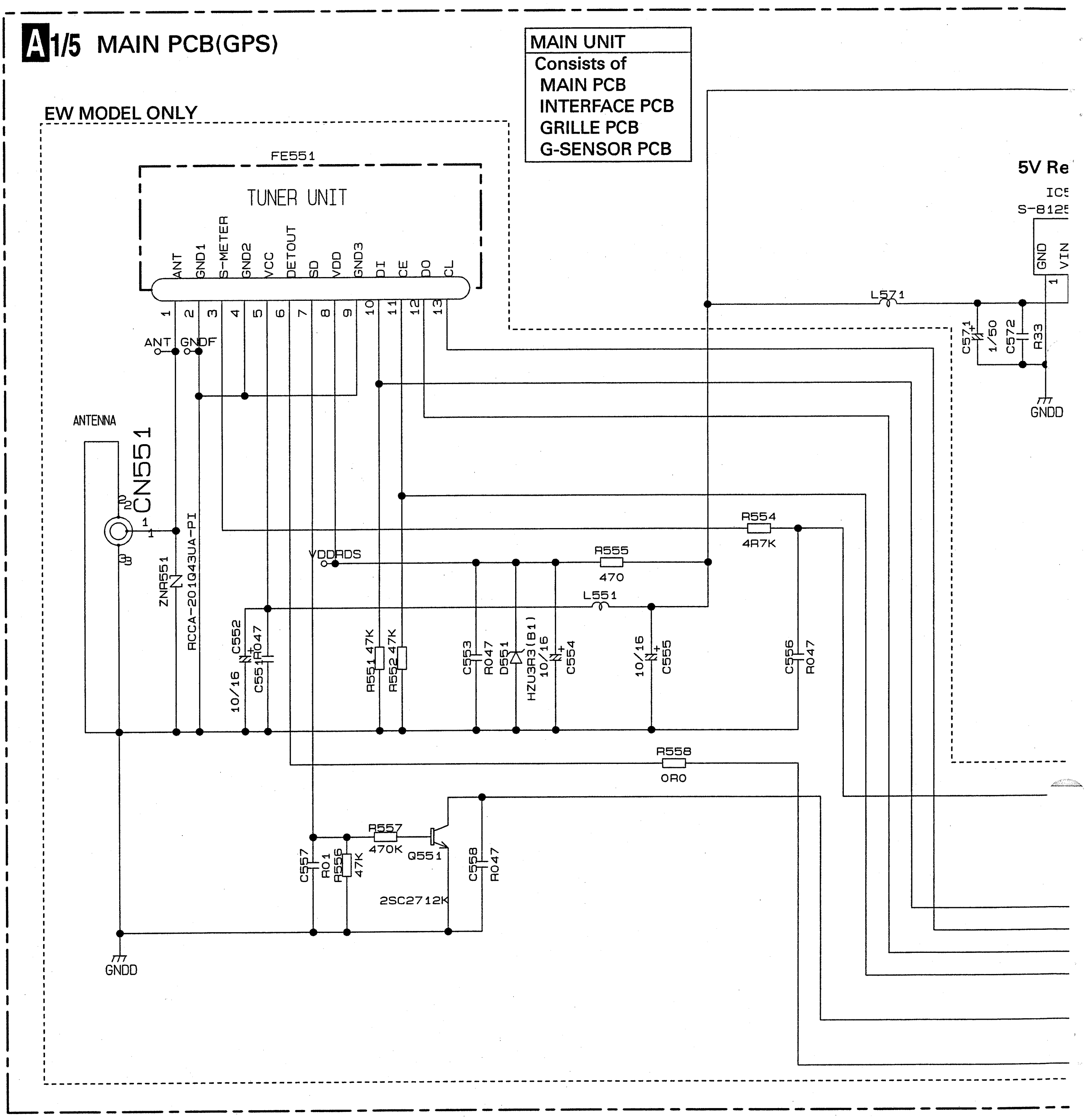
3.2 OVERALL CONNECTION DIAGRAM

Note: When ordering service parts, be sure to refer to "EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".


MAIN ASSY
FAN MOTOR
CXM1192
CN1802
D
G-SENSOR PCB
CN556
CN555
B INT
CN5004 I/F to MAIN (30p
CN3901 MAIN to I/F
DVD MECHANISM MODULE (MS2)
G 1/2 DVD CORE UNIT V(FRONT END)
G 2/2 DVD CORE UNIT V(BACK END)
CN1701
MS2 to MAIN (40pin)
CN3251
MAIN to MS2 (40pin)
CN1401
ATAPI-I/F (40pin)
CN2
ATAPI-I/F (50pin)
CN302
CC to MAIN (130pin)
CN3254
MAIN to CC (130pin)
E 1/6 CC UNIT(CPU,ASIC,SDRAM)
E 2/6 CC UNIT(ROM,SRAM,BUS-BUFFER)
E 3/6 CC UNIT(GRAPHIC)
E 4/6 CC UNIT(PC CARD)
E 5/6 CC UNIT(DSP,I/F CONNECTOR)
E 6/6 CC UNIT(CC POWER SUPPLY)
CN901
PC-CARD_I/F (68pin)
A 1/5 MAIN PCB(GPS)
A 2/5 MAIN PCB(SYSCOM)
A 3/5 MAIN PCB(P/S)
A 4/5 MAIN PCB(VIDEO•CC C
A 5/5 MAIN PCB(AUDIO)
CC UNIT
MAIN UNIT
GRILLE ASSY
C GRILLE PCB


CUE TUNER
(UC MODEL ONLY)
CN5002
CUE TUNER
and EXTENSION (10pin)
CN5005
SP
GUIDE SPEAKER
B INTERFACE PCB
CN5001
MIC
MIC ASSY
CPM1048
MAIN (30pin)
(30pin)
REMOTE
CONTROL
ASSY
CN504
GPS ANTENNA ASSY
CXB9354
F GPS UNIT
CN461
CN552
FE551
CN551
RDS ANTENNA ASSY
TUNER UNIT
(EW MODEL ONLY)
CORD ASSY (POWER SUPPLY)
1KΩ
REVERSE-GEAR SIGNAL INPUT
CAR SPEED SIGNAL INPUT
PARKING BRAKE
7.5A FUSE
+BATTERY
GND
MUTE
1KΩ
ILL
1KΩ
ACC
CN1801
CAR I/F (16pin)
CN3257
RGB CONNECTOR (26pin)
CORD ASSY
'S)
'SCOM)
5)
DEO•CC CORE I/F)
JDIO)
MAIN to GRILLE (6pin)
CN660
CN2851
GRILLE to MAIN (6pin)

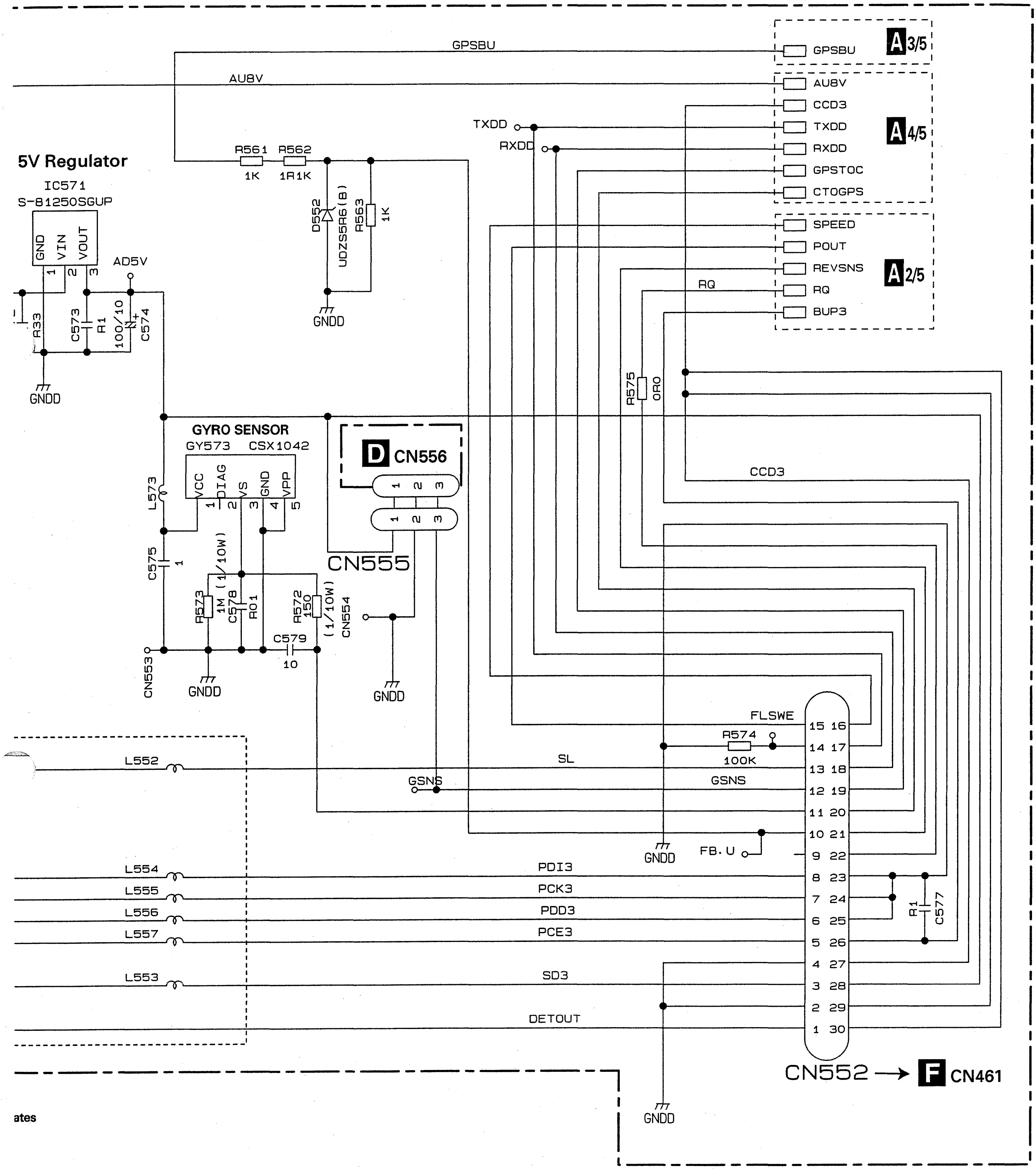
3.3 MAIN PCB 1/5 (GPS)


A1/5 MAIN PCB(GPS)
MAIN UNIT
Consists of
MAIN PCB
INTERFACE PCB
GRILLE PCB
G-SENSOR PCB
EW MODEL ONLY
FE551
TUNER UNIT
ANT
GND1
S-METER
GND2
VCC
DETOUT
SD
VDD
GND3
DI
CE
DO
CL
1 2 3 4 5 6 7 8 9 10 11 12 13
ANT
GNDF
ANTENNA
CN551
ZNR551
RCCA-201Q43UA-PI
VDDRDS
C552
10/16
C551
R047
R551 47K
R552 47K
C553
R047
D551
HZU3R3(B1)
10/16
C554
R555
470
L551
10/16
C555
R554
4R7K
C556
R047
R558
0R0
R557
470K
Q551
2SC2712K
C557
R01
R556
47K
C558
R047
GNDD
GNDD
5V Re
IC5
S-8125
GND
VIN
1
L571
C571
1/50
C572
R33

NOTE :
- ▭ Symbol indicates a resistor.
  No differentiation is made between chip resistors and discrete resistors.
- ⊣⊢ Symbol indicates a capacitor.
  No differentiation is made between chip capacitors and discrete capacitors.

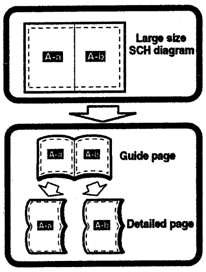
Decimal points for resistor and capacitor fixed values are expressed as :
2.2→2R2
0.022→R022

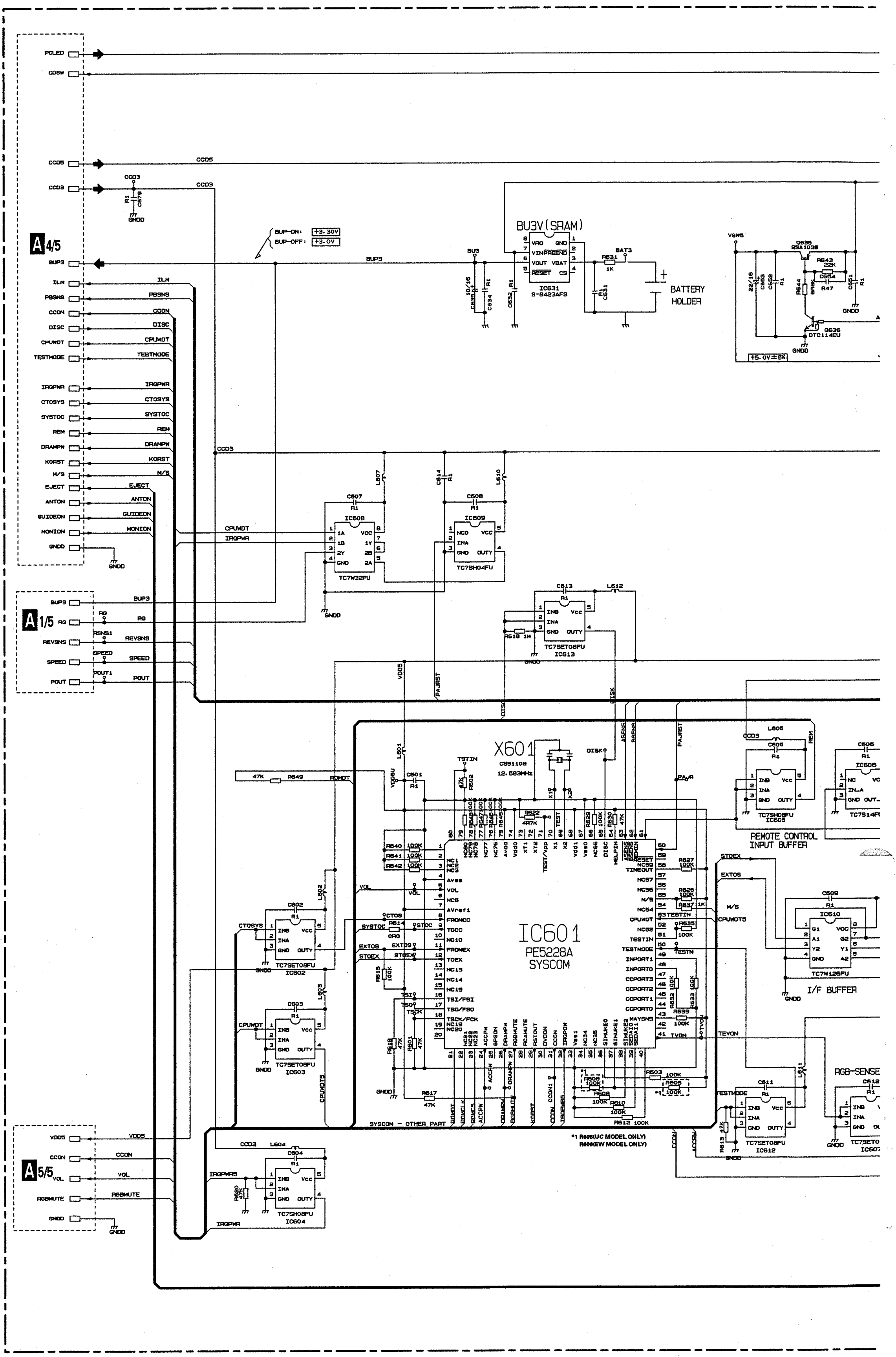
The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.


GPSBU
AU8V
A 3/5
GPSBU
AU8V
CCD3
TXDD
RXDD
GPSTOC
CTOGPS
A 4/5
SPEED
POUT
REVSNS
RQ
BUP3
A 2/5
TXDD
RXDD
RQ
5V Regulator
IC571
S-81250SGUP
GND
VIN
VOUT
1
2
3
AD5V
R33
C573
R1
100/10
C574
GNDD
R561
1K
R562
1R1K
D552
UDZS5R6(B)
R563
1K
GNDD
R575
0R0
GYRO SENSOR
GY573 CSX1042
VCC
DIAG
VS
GND
VPP
L573
C575
1
R573
1M (1/10W)
C578
R01
R572
150
(1/10W)
CN554
C579
10
CN553
GNDD
D CN556
CN555
GNDD
CCD3
FLSWE
R574
100K
SL
GSNS
GSNS
FB.U
GNDD
L552
L554
L555
L556
L557
L553
PDI3
PCK3
PDD3
PCE3
SD3
DETOUT
15 16
14 17
13 18
12 19
11 20
10 21
9 22
8 23
7 24
6 25
5 26
4 27
3 28
2 29
1 30
R1
C577
CN552 → F CN461
GNDD
ates

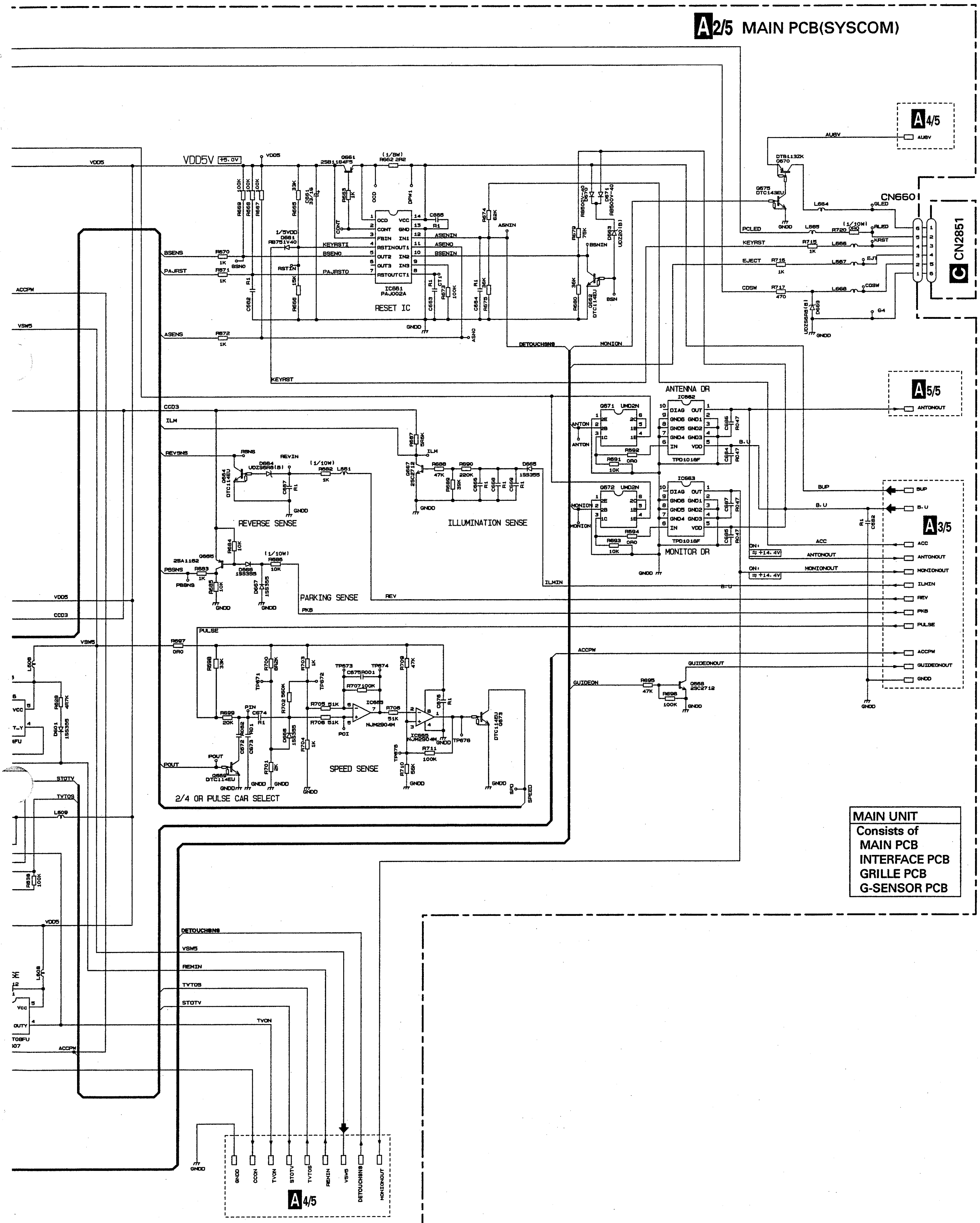
3.4 MAIN PCB 2/5 (SYSCOM)(GUIDE PAGE)

A-a 2/5


A-a
A-b
Large size SCH diagram
A-a
A-b
Guide page
A-a
A-b
Detailed page

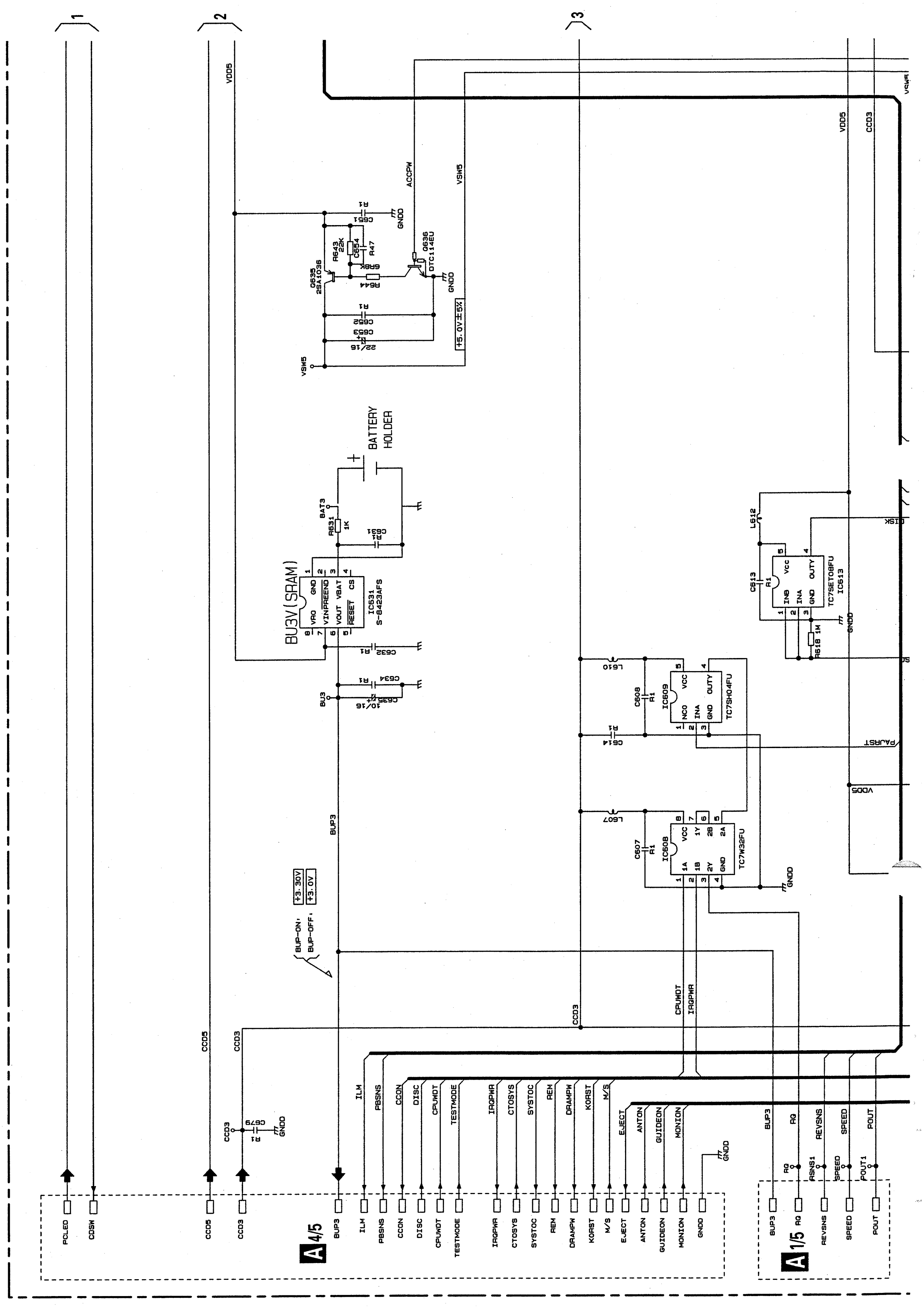

A 4/5
PCLED
CDSW
CCD5
CCD3
BUP3
ILM
PBSNS
CCON
DISC
CPUWDT
TESTMODE
IRQPWR
CTOSYS
SYSTOC
REM
DRAMPW
KORST
M/S
EJECT
ANTON
GUIDEON
MONION
GNDD
BUP-ON : +3.30V
BUP-OFF : +3.0V
BU3V(SRAM)
BU3
IC631
S-8423AFS
VRO
GND
VINPREEND
VOUT
VBAT
RESET
CS
R631 1K
BAT3
BATTERY HOLDER
C631
C632
C633
C634
VSW5
Q635 2SA1038
R643 22K
C654
R644
R47
C653
C652
C651
Q636 DTC114EU
+5.0V±5%
CCD3
L607
C514
L610
C607
C608
IC608
TC7W32FU
IC609
TC7SH04FU
CPUWDT
IRQPWR
C613
L612
IC613
TC7SET08FU
R618 1M
A 1/5
BUP3
RQ
REVSNS
SPEED
POUT
RSNS1
POUT1
VDD5
PAJRST
DISC
DISK
ASENS
BSENS
PAJRST
REM
X601
CSS1108
12.583MHz
TSTIN
DISK
PAJR
L601
C601
VDDSU
R649 47K
ROMDT
R640 100K
R641 100K
R642 100K
R622 4R7K
IC601
PE5228A
SYSCOM
VOL
CTOS
SYSTOC
R614
EXTOS
STOEX
R615 100K
C602
L602
IC602
TC7SET08FU
CTOSYS
C603
L603
IC603
TC7SET08FU
CPUWDT
CPUWDT5
R619 47K
R601 47K
R617 47K
GNDD
R627 100K
R628 100K
R637 1K
R635 100K
R639 100K
R632 100K
R633 100K
R603 100K
R606 100K
R608 100K
R609 100K
R610 100K
R611 100K
R612 100K
TESTM
TVON
TEVON
STOEX
EXTOS
M/S
CPUWDT5
L605
C605
IC605
TC7SH08FU
REMOTE CONTROL INPUT BUFFER
C606
IC606
TC7S14F
C609
IC610
TC7W126FU
I/F BUFFER
RGB-SENSE
L611
C611
IC612
TC7SET08FU
R613 47K
C612
IC607
TC7SET0
TESTMODE
SYSCOM - OTHER PART
*1 R605(UC MODEL ONLY)
R606(EW MODEL ONLY)
CCON
ACCPW
A 5/5
VDD5
CCON
VOL
RGBMUTE
GNDD
CCD3
L604
C604
IC604
TC7SH08FU
IRQPWR5
R620 47K
IRQPWR

A-b 2/5

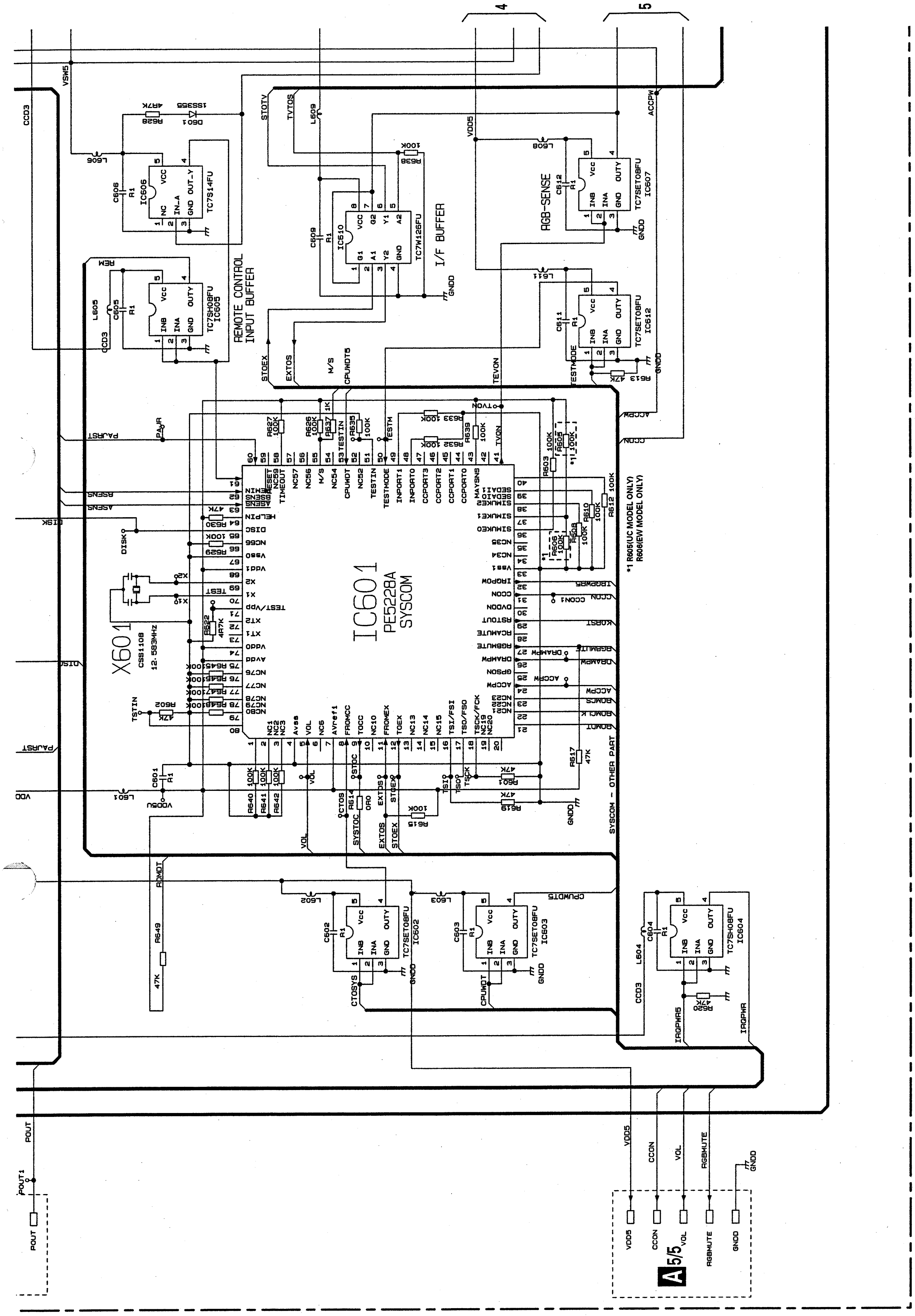

A2/5 MAIN PCB(SYSCOM)
A4/5
AUBV
VDD5
VDD5V
+5.0V
Q661 2SB1184F5
R662 2R2
RESET IC
IC661 PAJ002A
OCD
VCC
CONT
GND
FBIN
IN1
RSTINOUT1
IN2
OUT2
OUT3
IN3
RSTOUTCT1
KEYRSTI
BSENO
PAJRSTO
ASENIN
ASENO
BSENIN
BSENS
PAJRST
ASENS
ACCPW
VSW5
KEYRST
DETOUCHSNS
MONION
BSN
Q662 DTC114EU
D670 D671 RB500V-40
D683 UDZ20(B)
DTB113ZK Q670
Q675 DTC143EU
L684
CN660
CN2851
C
PCLED
KEYRST
EJECT
CDSW
R720
R716
R718
R717
L685
L686
L687
L688
GLED
RLED
KRST
EJT
CDSW
G4
UDZS6R8(B) D668
GNDD
ANTENNA DR
IC662
Q671 UMD2N
ANTON
TPD1018F
DIAG OUT
GND6 GND1
GND5 GND2
GND4 GND3
IN VDD
R691 10K
R692 0R0
MONITOR DR
IC663
Q672 UMD2N
MONION
R693 10K
R694 0R0
A5/5
ANTONOUT
BUP
B.U
A3/5
ACC
ANTONOUT
MONIONOUT
ILMIN
REV
PKB
PULSE
ACCPW
GUIDEONOUT
GNDD
ON: +14.4V
CCD3
ILM
REVSNS
RSNS
REVIN
D664 UDZ9R6(B)
R682 L681
Q664 DTC114EU
REVERSE SENSE
Q667 2SC2712
R688 47K
R690 220K
D665 1SS355
ILLUMINATION SENSE
Q665 2SA1162
PBSNS
R683 1K
R686
D666 1SS355
D667 1SS355
PARKING SENSE
REV
PKB
VDD5
CCD3
VSW5
PULSE
R697 0R0
R698 33K
R699 20K
PIN
C674
TP671
TP672
TP673
TP674
C675 R001
R707 100K
R705 51K
R706 51K
IC655
R708 51K
R709 47K
IC655 NJM2904M
R711 100K
TP676
Q673 DTC114EU
SPD
SPEED
POUT
Q669 DTC114EU
R701 2K
SPEED SENSE
2/4 OR PULSE CAR SELECT
GUIDEON
R695 47K
R696 100K
Q668 2SC2712
GUIDEONOUT
STOTV
TVTOS
L609
R638 100K
L608
DETOUCHSNS
VSW5
REMIN
TVTOS
STOTV
TVON
ACCPW
GNDD
CCON
TVON
STOTV
TVTOS
REMIN
VSW5
DETOUCHSNS
MONIONOUT
A4/5

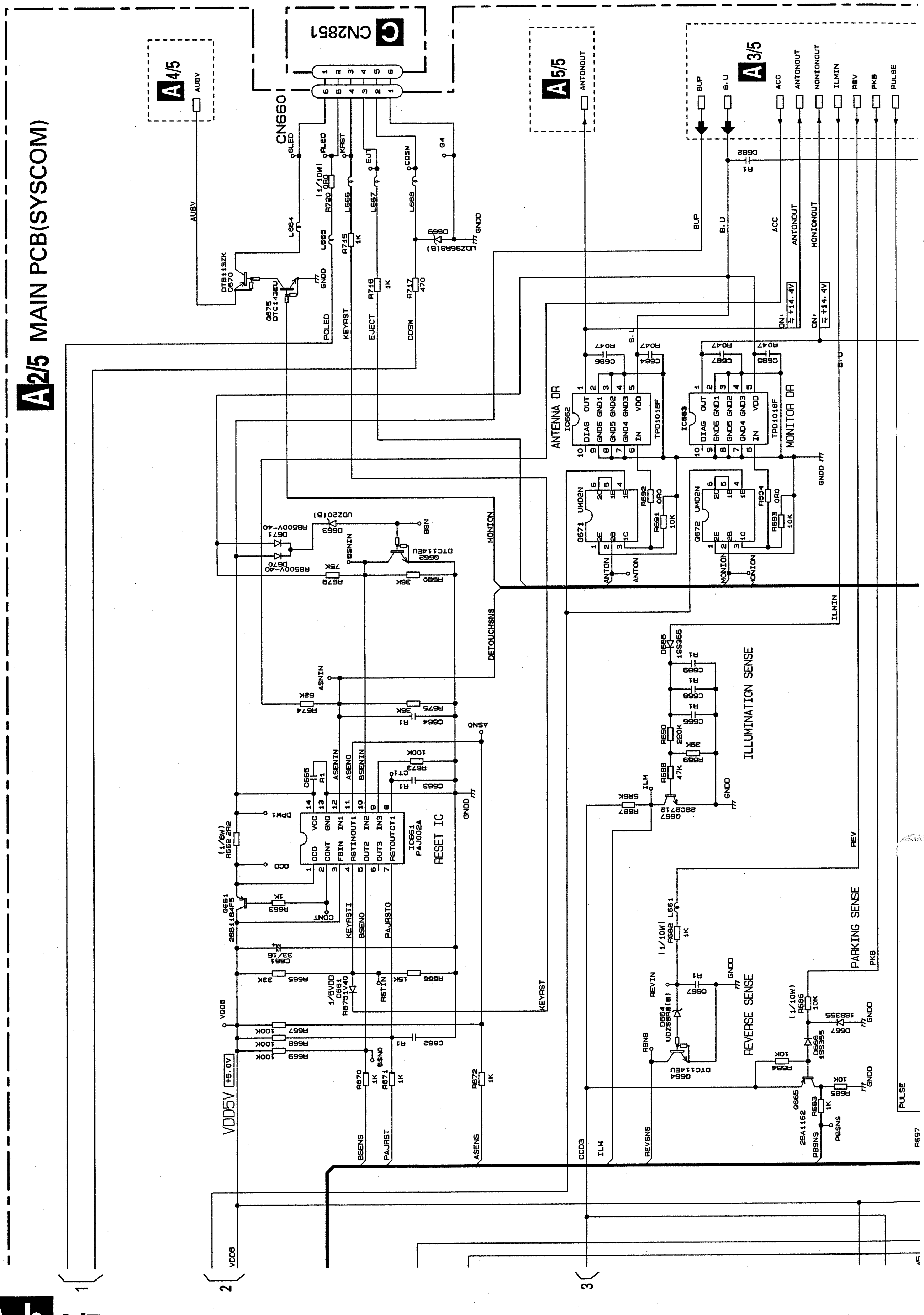
MAIN UNIT
Consists of
MAIN PCB
INTERFACE PCB
GRILLE PCB
G-SENSOR PCB

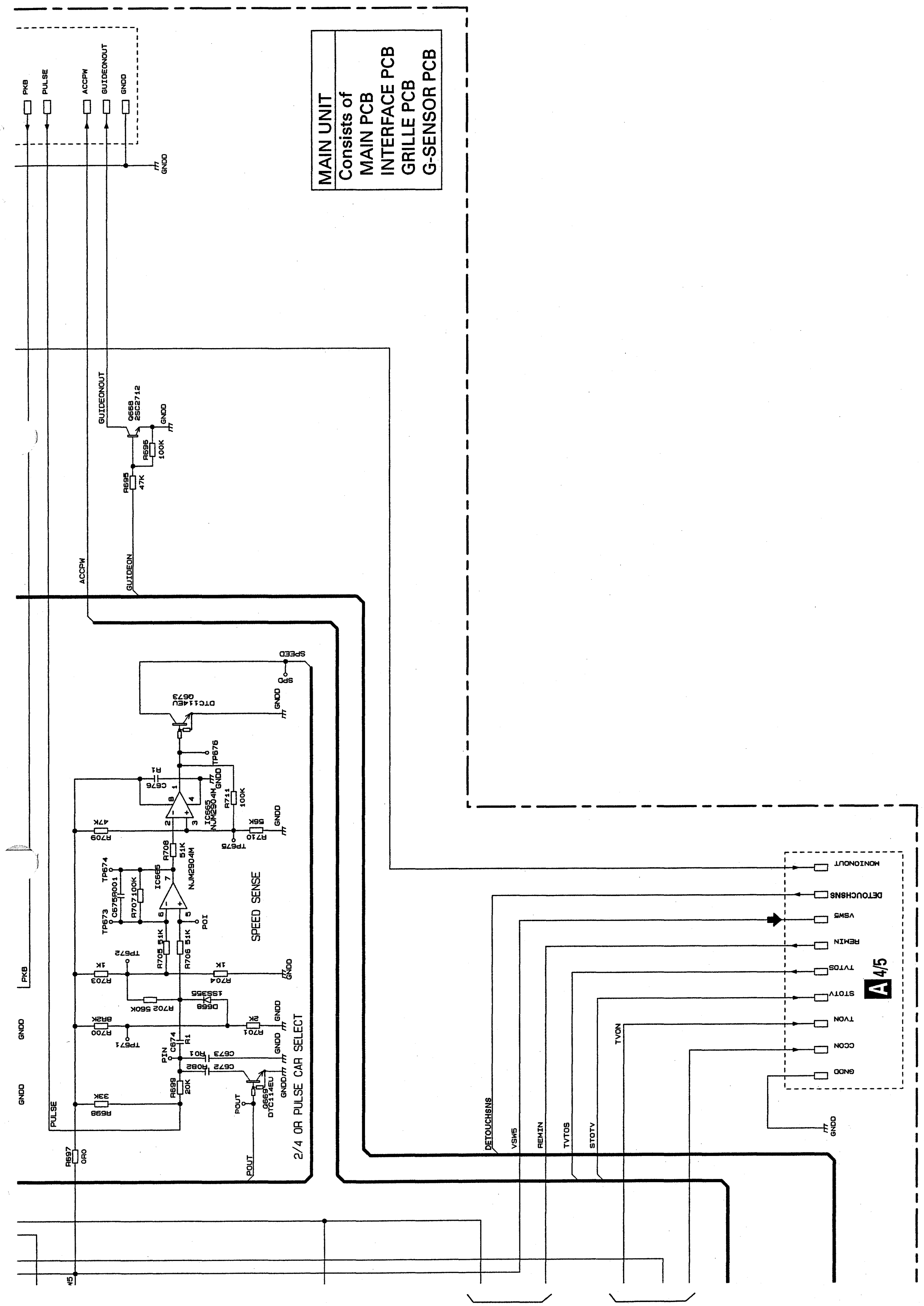
A-b
A-a


1
2
3
4
A
B
C
D
VDD5
ACCPW
VSW5
VDD5
CCD3
C651 R1
GNDD
R643 22K
C654
R47
Q635 2SA1036
R644 6R8K
Q636 DTC114EU
C652 R1
C653 22/16
+5.0V±5%
BATTERY HOLDER
BAT3
R631 1K
C631 R1
BU3V(SRAM)
IC631 S-8423AFS
VRO
GND
VINPREEND
VOUT
VBAT
RESET
CS
C632 R1
C634 R1
C635 10/16
BU3
BUP3
BUP-ON: +3.30V
BUP-OFF: +3.0V
L612
C613 R1
IC613 TC7SET08FU
INB
INA
Vcc
GND
OUTY
R618 1M
DISK
L610
C608 R1
IC609 TC7SH04FU
NCO
INA
VCC
GND
OUTY
C614 R1
PAJRST
VDD5
L607
C607 R1
IC608 TC7W32FU
1A
1B
2Y
GND
VCC
1Y
2B
2A
CPUWDT
IRQPWR
CCD3
CCD5
CCD3
C679 R1
ILM
PBSNS
CCON
DISC
CPUWDT
TESTMODE
IRQPWR
CTOSYS
SYSTOC
REM
DRAMPW
KORST
M/S
EJECT
ANTON
GUIDEON
MONION
GNDD
BUP3
RQ
REVSNS
SPEED
POUT
RQ
RSNS1
SPEED
POUT1
PCLED
CDSW
CCD5
CCD3
A 4/5
BUP3
ILM
PBSNS
CCON
DISC
CPUWDT
TESTMODE
IRQPWR
CTOSYS
SYSTOC
REM
DRAMPW
KORST
M/S
EJECT
ANTON
GUIDEON
MONION
GNDD
BUP3
RQ
REVSNS
SPEED
POUT
A 1/5

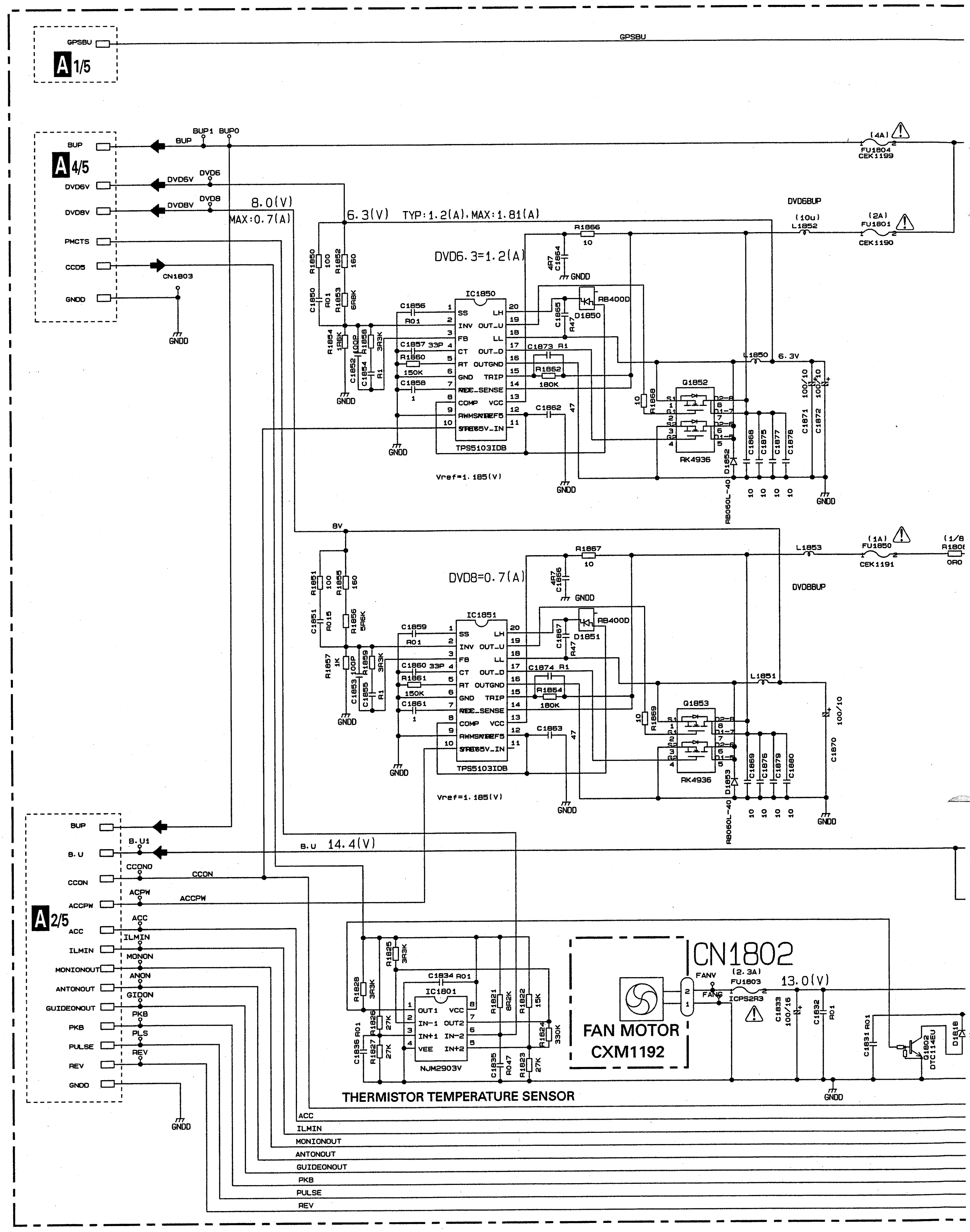
A-b
A-a


IC601
PE5228A
SYSCOM
X601
CSS1108
12.583MHz
IC606
TC7S14FU
IC605
TC7SH08FU
REMOTE CONTROL INPUT BUFFER
IC610
TC7W126FU
I/F BUFFER
IC607
TC7SET08FU
RGB-SENSE
IC612
TC7SET08FU
IC602
TC7SET08FU
IC603
TC7SET08FU
IC604
TC7SH08FU
*1 R605(UC MODEL ONLY)
R606(EW MODEL ONLY)
SYSCOM – OTHER PART
VDD5
CCON
VOL
RGBMUTE
GNDD
A 5/5
POUT
POUT1
CCD3
VSW5
STOTV
TVTOS
ACCPW
STOEX
EXTOS
M/S
CPUWDT5
TEVON
PAJRST
ASENS
DISK
VDD
RDMDT
IRQPWR
IRQPWR5
CTOSYS
CPUWDT
4
5


A 2/5 MAIN PCB(SYSCOM)
C CN2851
CN660
A 4/5
AUBV
A 5/5
ANTONOUT
A 3/5
BUP
B.U
ACC
ANTONOUT
MONIONOUT
ILMIN
REV
PKB
PULSE
ANTENNA DR
IC662
TPD1018F
MONITOR DR
IC663
TPD1018F
Q671 UMD2N
Q672 UMD2N
Q670 DTB113ZK
Q675 DTC143EU
Q662 DTC114EU
DETOUCHSNS
MONION
RESET IC
IC661 PAJ002A
Q661 2SB1184F5
VDD5V
+5.0V
ILLUMINATION SENSE
Q667 2SC2712
REVERSE SENSE
Q664 DTC114EU
PARKING SENSE
Q665 2SA1162
BSENS
PAJRST
ASENS
CCD3
ILM
REVSNS
PBSNS
VDD5
1
2
3

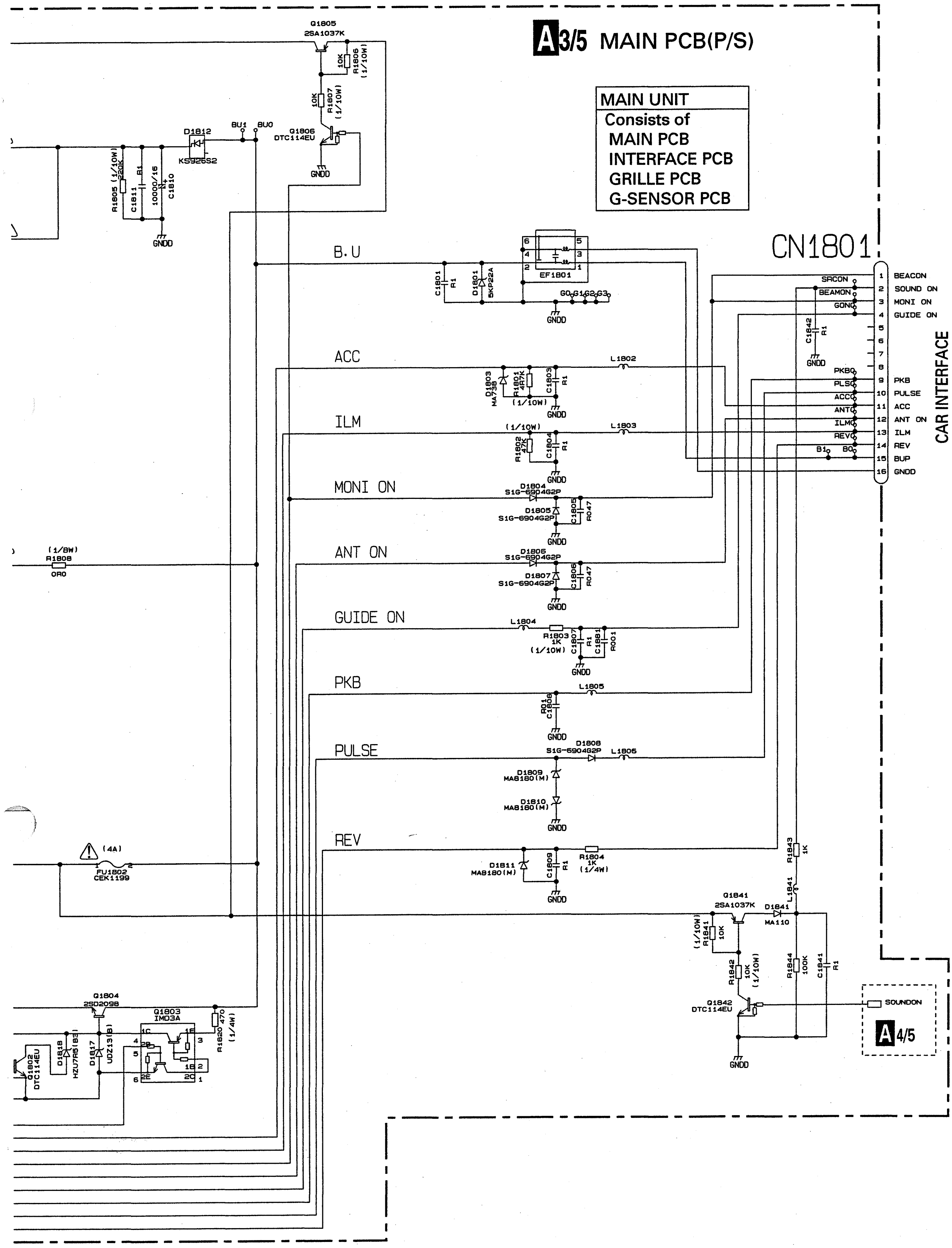

MAIN UNIT
Consists of
MAIN PCB
INTERFACE PCB
GRILLE PCB
G-SENSOR PCB
PKB
PULSE
ACCPW
GUIDEONOUT
GNDD
GUIDEONOUT
Q658 2SC2712
R696 100K
R695 47K
ACCPW
GUIDEON
SPEED
SPD
Q673 DTC114EU
TP676
C676 R1
R711 100K
IC665 NJM2904M
R709 47K
R710 56K
TP675
R708 51K
IC665 NJM2904M
TP674
C675 R001
R707 100K
TP673
POI
SPEED SENSE
R705 51K
R706 51K
TP672
R703 1K
R704 1K
D668 1SS355
R702 560K
R700 8R2K
R701 2K
TP671
PIN
C674 R1
C673 R01
C672 R082
R699 20K
Q669 DTC114EU
POUT
R698 33K
R697 0R0
2/4 OR PULSE CAR SELECT
MONIONOUT
DETOUCHSNS
VSW5
REMIN
TVTOS
STOTV
TVON
CCON
GNDD
A 4/5
DETOUCHSNS
VSW5
REMIN
TVTOS
STOTV
TVON
4
5

3.5 MAIN PCB 3/5 (P/S)


A 1/5
GPSBU
A 4/5
BUP
DVD6V
DVD8V
PMCTS
CCD5
GNDD
CN1803
BUP1 BUP0
DVD6
DVD8
8.0(V)
MAX:0.7(A)
6.3(V) TYP:1.2(A),MAX:1.81(A)
DVD6.3=1.2(A)
IC1850
TPS5103IDB
Vref=1.185(V)
RB400D
D1850
Q1852
RK4936
RB050L-40
D1852
L1850
6.3V
(4A)
FU1804
CEK1199
DVD6BUP
(10u)
L1852
(2A)
FU1801
CEK1190
8V
DVD8=0.7(A)
IC1851
D1851
Q1853
D1853
L1851
L1853
(1A)
FU1850
CEK1191
DVD8BUP
(1/8
R1808
0R0
A 2/5
B.U
B.U1
B.U 14.4(V)
CCON
CCON0
ACCPW
ACC
ILMIN
MONIONOUT
MONON
ANTONOUT
ANON
GUIDEONOUT
GIDON
PKB
PLS
PULSE
REV
IC1801
NJM2903V
THERMISTOR TEMPERATURE SENSOR
CN1802
FANV
FAN
(2.3A)
FU1803
ICPS2R3
13.0(V)
FAN MOTOR
CXM1192
Q1802
DTC114EU
D1818

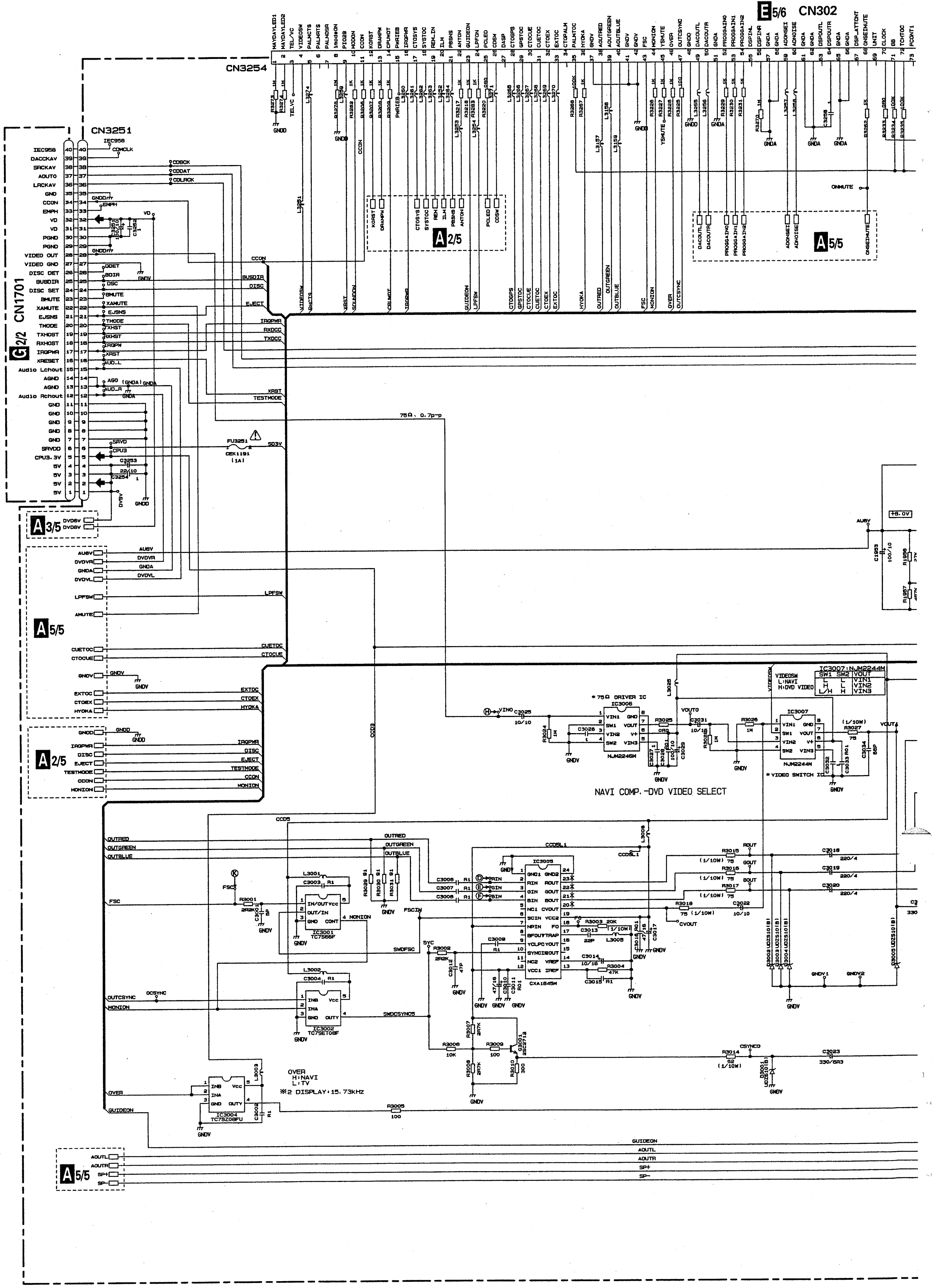
A 3/5 MAIN PCB(P/S)

MAIN UNIT
Consists of
MAIN PCB
INTERFACE PCB
GRILLE PCB
G-SENSOR PCB

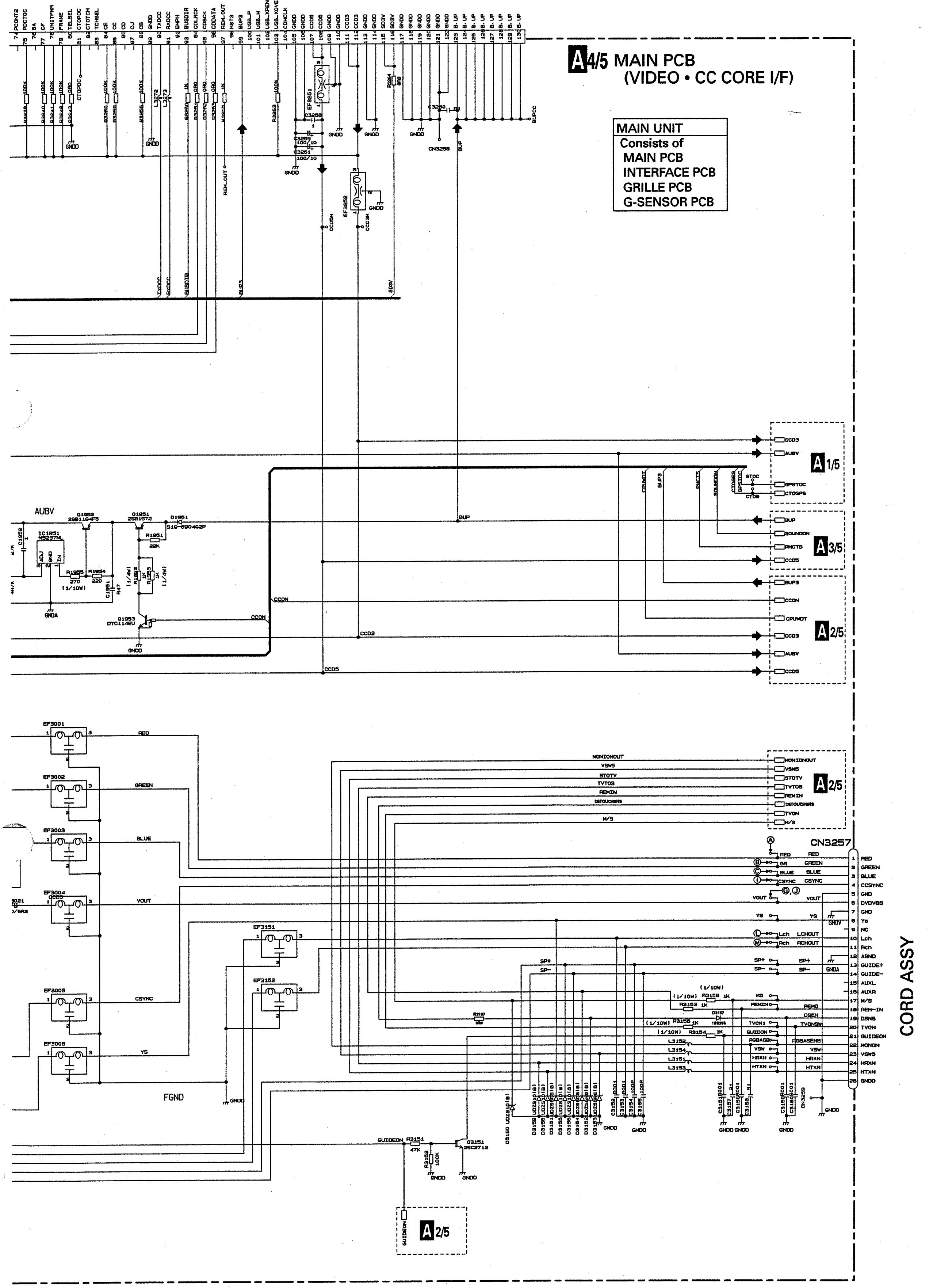

Q1805
2SA1037K
10K
R1806
(1/10W)
10K
R1807
(1/10W)
Q1806
DTC114EU
GNDD
D1812
KS926S2
BU1
BU0
R1805 (1/10W)
220K
C1811
R1
10000/16
C1810
GNDD
CN1801
B.U
C1801
R1
D1801
5KP22A
EF1801
G0 G1 G2 G3
GNDD
ACC
L1802
D1803
MA738
R1801
4R7K
(1/10W)
C1803
R1
GNDD
ILM
(1/10W)
L1803
R1802
47K
C1804
R1
GNDD
MONI ON
D1804
S1G-6904G2P
D1805
S1G-6904G2P
C1805
R047
GNDD
ANT ON
D1806
S1G-6904G2P
D1807
S1G-6904G2P
C1806
R047
GNDD
GUIDE ON
L1804
R1803
1K
(1/10W)
C1807
R1
C1881
R001
GNDD
PKB
L1805
R01
C1808
GNDD
PULSE
D1808
S1G-6904G2P
L1806
D1809
MA8180(M)
D1810
MA8180(M)
GNDD
REV
D1811
MA8180(M)
C1809
R1
R1804
1K
(1/4W)
GNDD
(1/8W)
R1808
0R0
(4A)
FU1802
CEK1199
SRCON
BEAMON
GONC
C1842
R1
GNDD
PKBC
PLSC
ACCC
ANTC
ILMC
REVC
B1
B0
1 BEACON
2 SOUND ON
3 MONI ON
4 GUIDE ON
5
6
7
8
9 PKB
10 PULSE
11 ACC
12 ANT ON
13 ILM
14 REV
15 BUP
16 GNDD
CAR INTERFACE
R1843
1K
L1841
Q1841
2SA1037K
D1841
MA110
(1/10W)
R1841
10K
R1842
10K
(1/10W)
R1844
100K
C1841
R1
Q1842
DTC114EU
GNDD
SOUNDON
A 4/5
Q1804
2SD2098
Q1803
IMD3A
1C
1E
2B
3
4
5
6
2E
1B
2C
2
1
R1820
470
(1/4W)
Q1802
DTC114EU
D1818
HZU7R5(B3)
D1817
UDZ13(B)

3.6 MAIN PCB 4/5 (VIDEO•CC CORE I/F)(GUIDE PAGE)

A-a 4/5


E 5/6 CN302
CN3254
CN3251
G 2/2 CN1701
A 2/5
A 5/5
A 3/5
FU3251
CEK1181 (1A)
75Ω、0.7p-p
*75Ω DRIVER IC
IC3006
NJM2246M
IC3007 : NJM2244M
VIDEOSW L:NAVI H:DVD VIDEO
*VIDEO SWITCH IC
NAVI COMP.-DVD VIDEO SELECT
IC3001 TC7S66F
IC3002 TC7SET08F
IC3004 TC7S08FU
IC3005 CXA1645M
Q3001 2SC2712
OVER H:NAVI L:TV
※2 DISPLAY : 15.73kHz
+8.0V
AU8V
GUIDEON
AOUTL
AOUTR
SP+
SP-
OUTRED
OUTGREEN
OUTBLUE
FSC
OUTCSYNC
MONION
CCON
ONMUTE

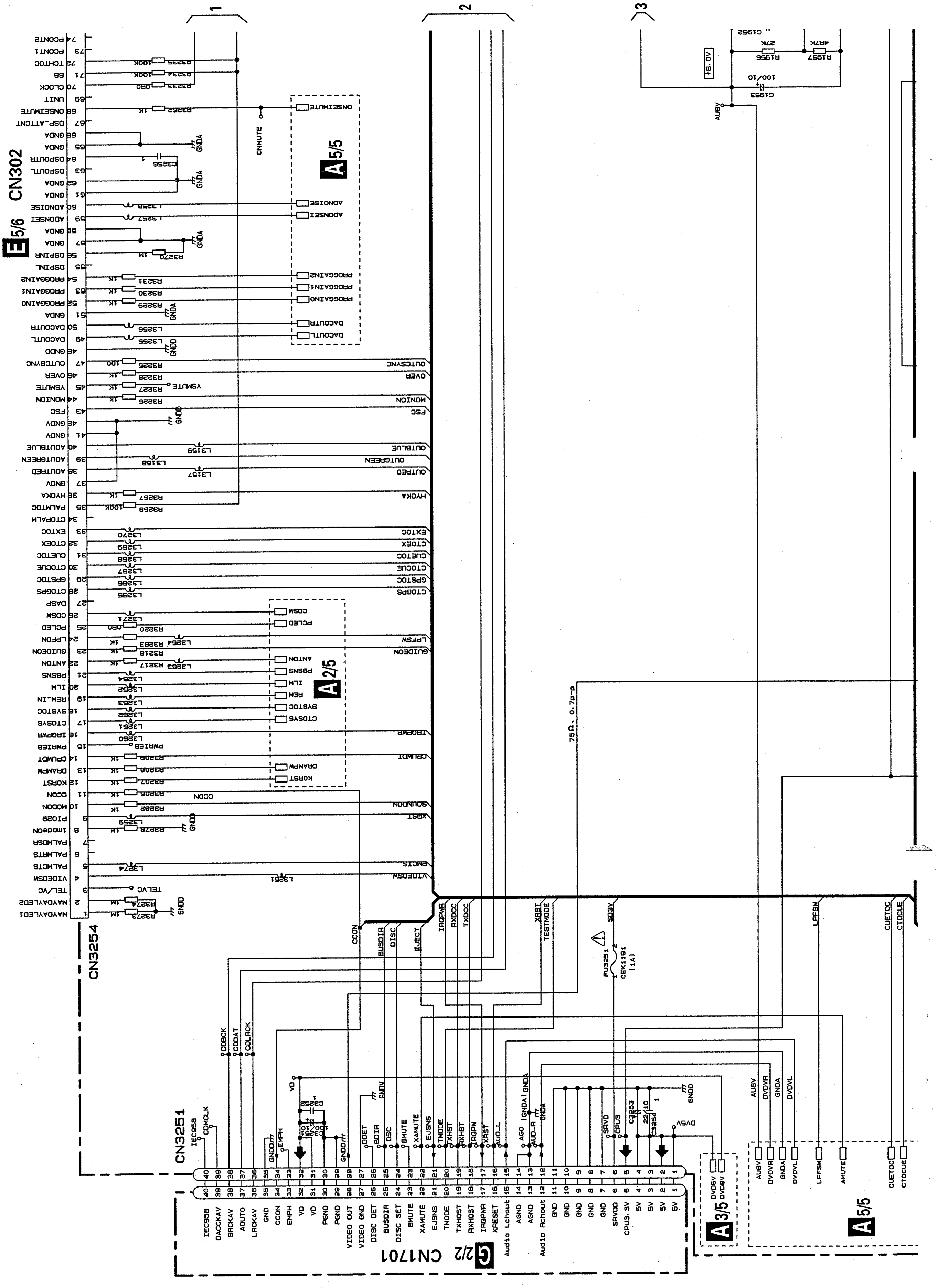
A-b 4/5


A4/5 MAIN PCB
(VIDEO • CC CORE I/F)
MAIN UNIT
Consists of
MAIN PCB
INTERFACE PCB
GRILLE PCB
G-SENSOR PCB
A1/5
A3/5
A2/5
CN3257
CORD ASSY
AUBV
IC1951
Q1951
Q1952
Q1953
D1951
EF3001
EF3002
EF3003
EF3004
EF3005
EF3006
EF3151
EF3152
EF3251
EF3252
Q3151
2SC2712
RED
GREEN
BLUE
VOUT
CSYNC
YS
FGND
GUIDEON
CCD3
CCD5
BUP
BUP3
CCON
CPUWDT
SOUNDON
PHCTS
GPSTOC
CTOGPS
MONIONOUT
VSWS
STOTV
TVTOS
REMIN
DETOUCHSNS
TVON
M/S
SP+
SP-
Lch
Rch
GNDD
GNDA

1 2 3 4

A-b
A-a

A

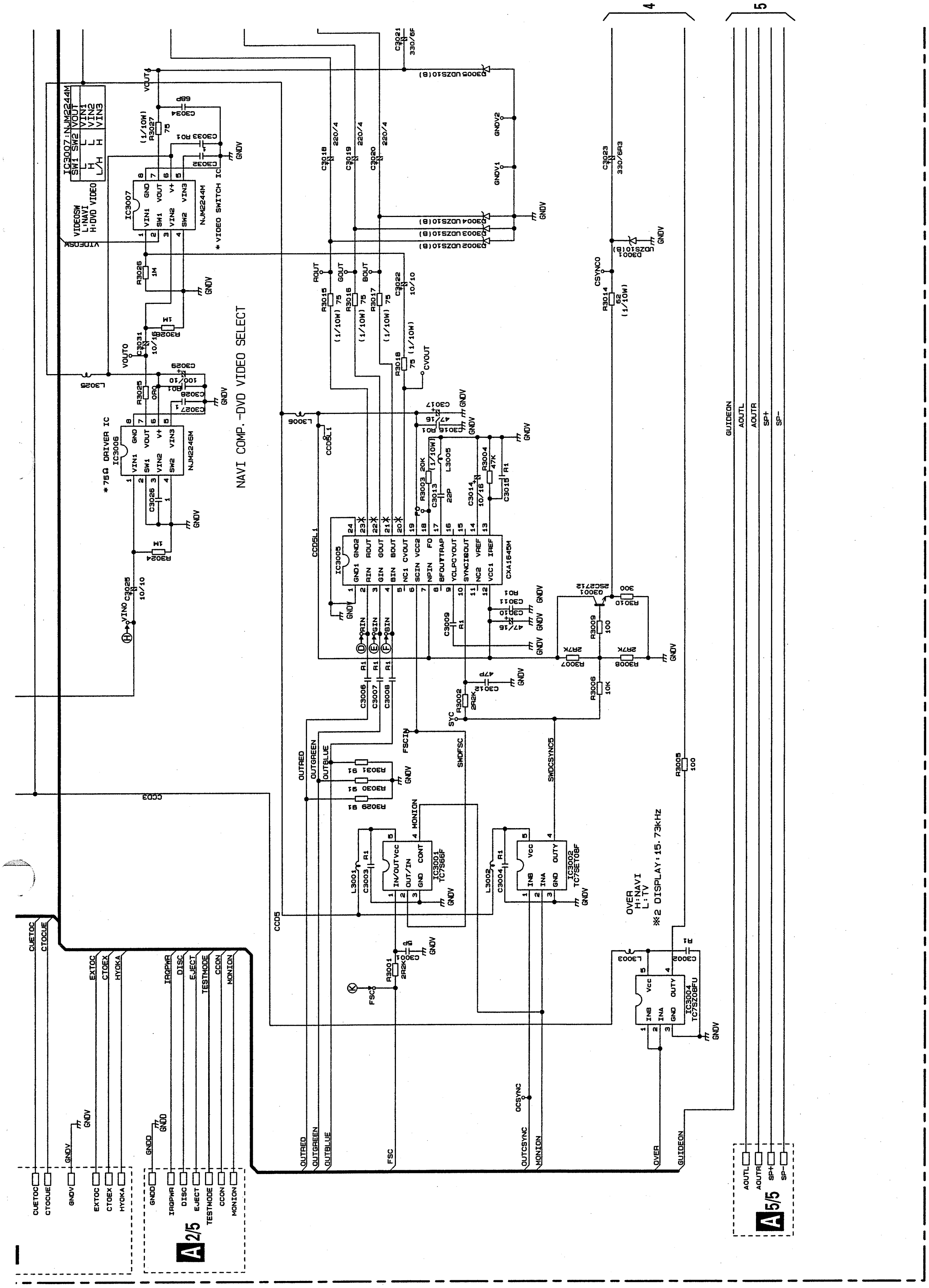

CN302
E 5/6
A 5/5
A 2/5
CN3254
CN3251
A 3/5
A 5/5
G 2/2 CN1701
FU3251
CEK1191
(1A)
75Ω. 0.7p-p
+8.0V
C1953
100/10
R1956
27K
R1957
4R7K
C1952
AUBV
ONMUTE
CDBCK
CDDAT
CDLRCK
VD
C3252
GNDV
DVD5V
LPFSW
AMUTE
CUETOC
CTOCUE
AUBV
DVDVR
GNDA
DVDVL
IEC958
DACCKAV
SRCKAV
AOUTO
LRCKAV
GND
CCON
EMPH
VD
PGND
VIDEO OUT
VIDEO GND
DISC DET
BUSDIR
DISC SET
BMUTE
XAMUTE
EJSNS
TMODE
TXHOST
RXHOST
IRQPWR
XRESET
Audio Lchout
AGND
Audio Rchout
SRVDD
CPU3.3V
5V

B

C

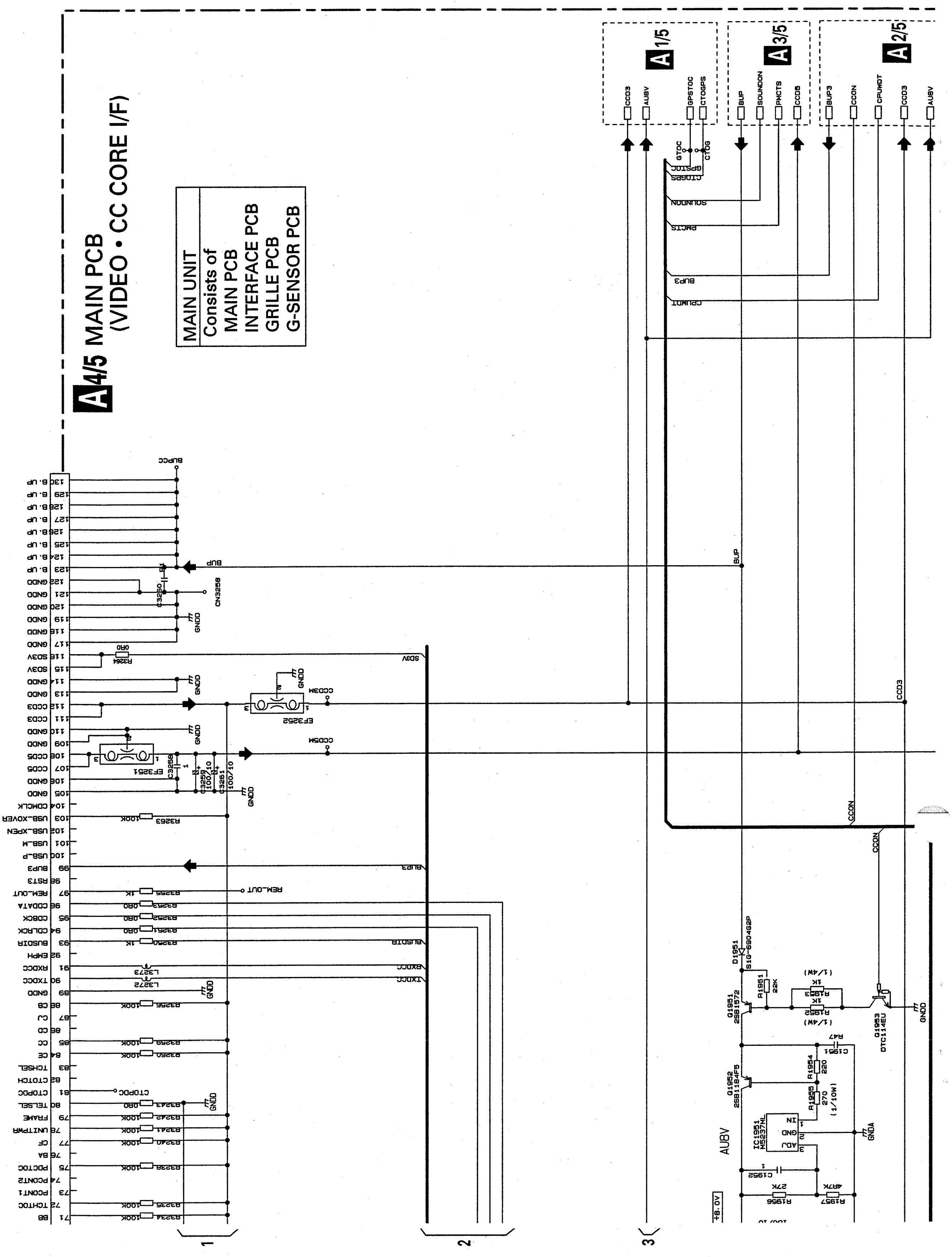
D

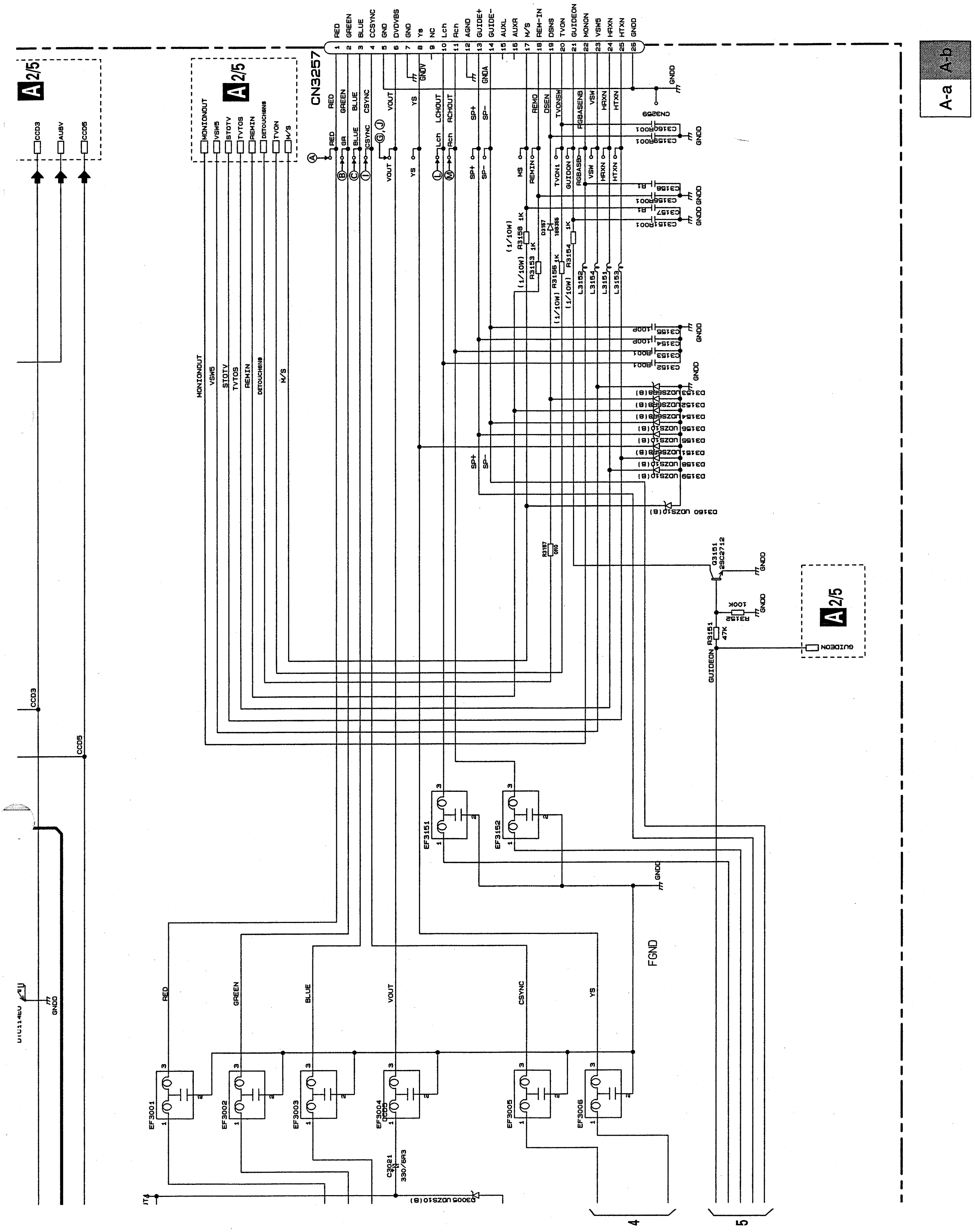
1 2 3 4


NAVI COMP.-DVD VIDEO SELECT
IC3007:NJM2244M
SW1 SW2 VOUT
L L VIN1
H L VIN2
L/H H VIN3
VIDEOSW
L:NAVI
H:DVD VIDEO
IC3007
NJM2244M
* VIDEO SWITCH IC
* 75Ω DRIVER IC
IC3006
NJM2246M
IC3005
CXA1645M
IC3001
TC7S66F
IC3002
TC7SET08F
IC3004
TC7SZ08FU
Q3001
2SC2712
VOUT4
VOUTO
VINO
CCD5L1
CCD3
CCD5
ROUT
GOUT
BOUT
CVOUT
CSYNCO
RIN
GIN
BIN
FSCIN
SWDFSC
SWDCSYNCS
SYC
FSC
OUTRED
OUTGREEN
OUTBLUE
OUTCSYNC
OCSYNC
MONION
OVER
GUIDEON
OVER
H:NAVI
L:TV
※2 DISPLAY:15.73kHz
GNDV
GNDV1
GNDV2
GNDD
CUETOC
CTOCUE
EXTOC
CTOEX
HYOKA
IRQPWR
DISC
EJECT
TESTMODE
CCON
AOUTL
AOUTR
SP+
SP-
A 2/5
A 5/5
4
5
D3001 UDZS10(B)
D3002 UDZS10(B)
D3003 UDZS10(B)
D3004 UDZS10(B)
D3005 UDZS10(B)
C3021 330/6F
C3018 220/4
C3019 220/4
C3020 220/4
C3023 330/6R3
C3022 10/10
C3025 10/10
C3031 10/16
C3029 100/10
C3032 C3033 R01
C3034 68P
C3026 1
C3027 C3028 R01
C3017 47/16
C3016 R01
C3013 22P
C3014 10/16
C3015 R1
C3009 R1
C3010 47/16
C3011 R01
C3012 47P
C3006 R1
C3007 R1
C3008 R1
C3003 R1
C3004 R1
C3001 R1
C3002 R1
R3027 75 (1/10W)
R3026 1M
R3028 1M
R3024 1M
R3025 0R0
R3015 75 (1/10W)
R3016 75 (1/10W)
R3017 75 (1/10W)
R3018 75 (1/10W)
R3014 82 (1/10W)
R3003 20K (1/10W)
R3004 47K
R3002 2R2K
R3006 10K
R3007 2R7K
R3008 2R7K
R3009 100
R3010 300
R3005 100
R3001 2R2K
R3029 91
R3030 91
R3031 91
L3025
L3006
L3005
L3001
L3002
L3003
VIN1 GND VOUT V+ VIN3 SW2 VIN2 SW1
GND1 GND2 RIN ROUT GIN GOUT BIN BOUT NC1 CVOUT SCIN VCC2 NPIN FO BFOUT TRAP YCLPCYOUT SYNCIN SOUT NC2 VREF VCC1 IREF
IN/OUT Vcc OUT/IN CONT GND
INB INA GND OUTY Vcc

A 4/5 MAIN PCB (VIDEO • CC CORE I/F)

MAIN UNIT
Consists of
MAIN PCB
INTERFACE PCB
GRILLE PCB
G-SENSOR PCB

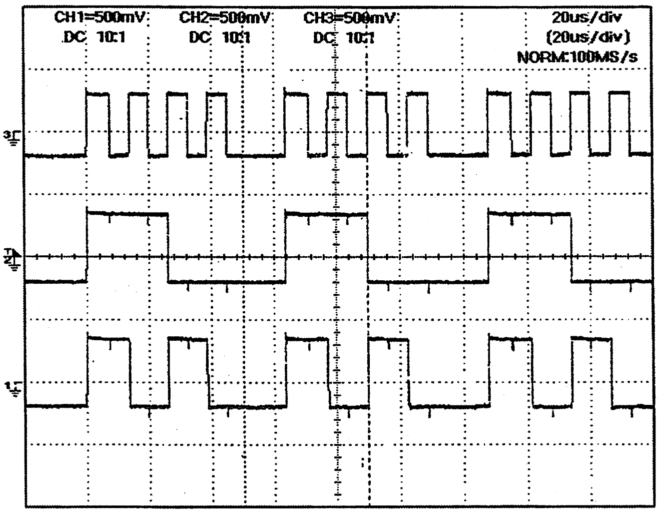

A 1/5
CCD3
AUBV
GPSTOC
CTOGPS
A 3/5
BUP
SOUNDON
PMCTS
CCD5
A 2/5
BUP3
CCON
CPUWDT
CCD3
AUBV
GTOC
CTOG
GPSTOC
CTOGPS
SOUNDON
PMCTS
BUP3
CPUWDT
BUPCC
BUP
C3250
CN3258
GNDD
R3264 0R0
SD3V
EF3252
CCD3M
EF3251
CCD5M
C3258
C3259 100/10
C3261 100/10
CCON
R3263 100K
R3255 1K
REM-OUT
R3253 0R0
R3252 0R0
R3251 0R0
R3250 1K
BUSDIR
L3273
L3272
RXDCC
TXDCC
R3256 100K
R3259 100K
R3260 100K
CTOPDC
R3243 0R0
R3242 100K
R3241 100K
R3240 100K
R3238 100K
R3235 100K
R3234 100K
130 B.UP
129 B.UP
128 B.UP
127 B.UP
126 B.UP
125 B.UP
124 B.UP
123 B.UP
122 GNDD
121 GNDD
120 GNDD
119 GNDD
118 GNDD
117 GNDD
116 SD3V
115 SD3V
114 GNDD
113 GNDD
112 CCD3
111 CCD3
110 GNDD
109 GNDD
108 CCD5
107 CCD5
106 GNDD
105 GNDD
104 CDMCLK
103 USB-XOVER
102 USB-XPEN
101 USB-M
100 USB-P
99 BUP3
98 RST3
97 REM-OUT
96 CDDATA
95 CDBCK
94 CDLRCK
93 BUSDIR
92 EMPH
91 RXDCC
90 TXDCC
89 GNDD
88 CB
87 CJ
86 CD
85 CC
84 CE
83 TCHSEL
82 CTOTCH
81 CTOPDC
80 TELSEL
79 FRAME
78 UNITPWR
77 CF
76 BA
75 PDCTOC
74 PCONT2
73 PCONT1
72 TCHTOC
71 BB
D1951 S1G-6904G2P
R1951 22K
Q1951 2SB1572
R1953 1K (1/4W)
R1952 1K (1/4W)
Q1953 DTC114EU
C1953 R47
Q1952 2SB1184F5
R1954 220
R1955 270 (1/10W)
IC1951 M5237ML
IN
GND
ADJ
GNDA
C1952
R1956 27K
R1957 4R7K
AUBV
+8.0V
1
2
3


A 2/5
CCD3
AUSV
CCD5
MONIONOUT
VSW5
STOTV
TVTOS
REMIN
DETOUCHSNS
TVON
M/S
CN3257
RED
GREEN
BLUE
CCSYNC
GND
DVDVBS
Ys
NC
Lch
Rch
AGND
GUIDE+
GUIDE-
AUXL
AUXR
REM-IN
DSNS
GUIDEON
MONON
HRXN
HTXN
GNDD
GNDV
GNDA
CSYNC
VOUT
YS
LCHOUT
RCHOUT
SP+
SP-
REMO
DSEN
TVONSW
RGBASENB
VSW
CN3259
C3160
C3159
C3156
C3158
C3157
C3151
R3158 1K
R3153 1K
R3156 1K
R3154 1K
D3157
(1/10W)
L3152
L3154
L3151
L3153
C3155 100P
C3154 100P
C3153
C3152
D3153 UDZS6R8(B)
D3152 UDZS6R8(B)
D3154 UDZS6R8(B)
D3156 UDZS10(B)
D3155 UDZS10(B)
D3151 UDZS6R8(B)
D3158 UDZS10(B)
D3159 UDZS10(B)
D3160 UDZS10(B)
R3157 0R0
Q3151 2SC2712
R3152 100K
R3151 47K
GUIDEON
EF3151
EF3152
FGND
EF3001
EF3002
EF3003
EF3004
EF3005
EF3006
C3021 330/6R3
D3005 UDZS10(B)
DTC114ED
4
5
A-a
A-b

Note: The encircled numbers denote measuring pointes in the circuit diagram.

● Waveforms

- Navigation RGB Color Bar Signal

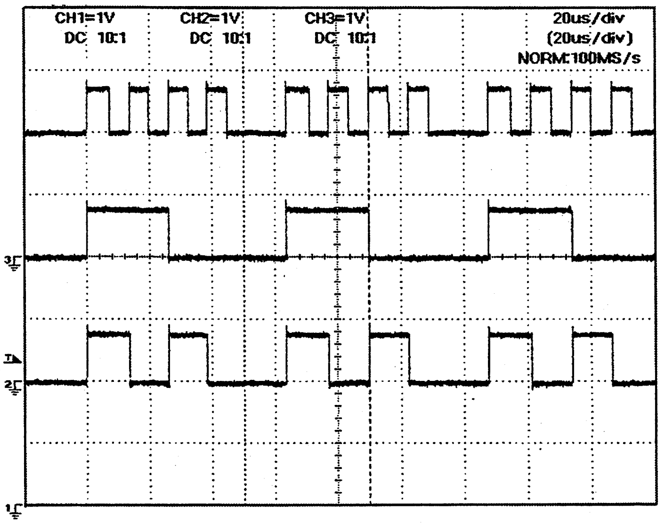


CH1 : Ⓒ TP BLUE →

CH2 : Ⓑ TP GR →

CH3 : Ⓐ TP RED →

- Navigation RGB Color Bar Signal

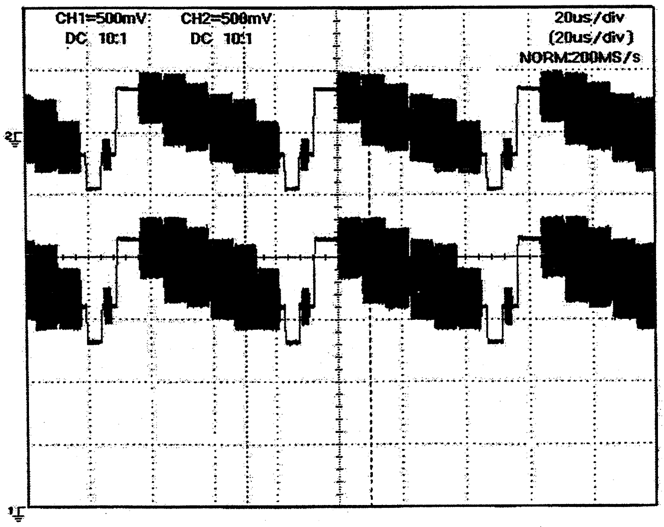


CH1 : Ⓕ TP BIN →

CH2 : Ⓔ TP GIN →

CH3 : Ⓓ TP RIN →

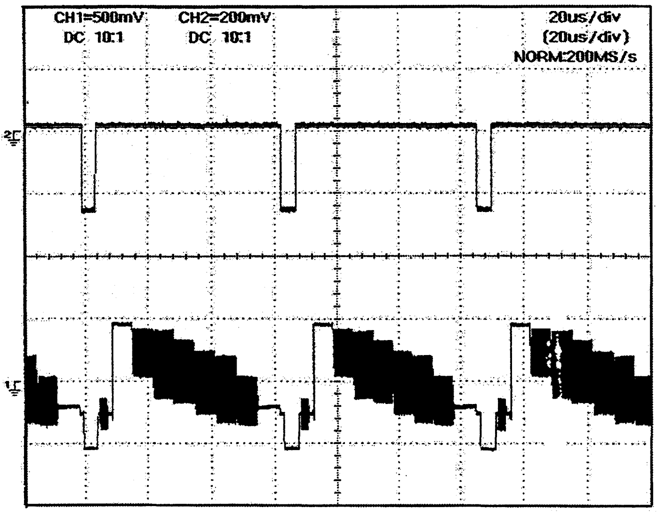
- DVD Video Color Bar Signal



CH1 : Ⓖ TP VOUT →

CH2 : Ⓗ TP VIN0 →

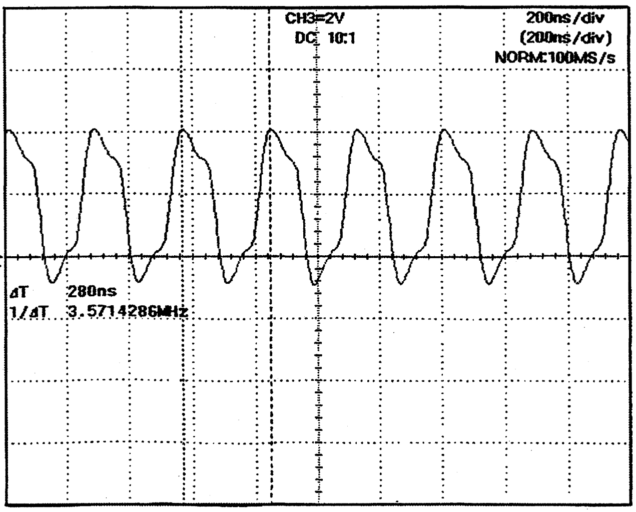
- **DVD Video Color Bar Signal**



CH1 : Ⓘ TP CSYNC →

CH2 : Ⓙ TP VOUT →

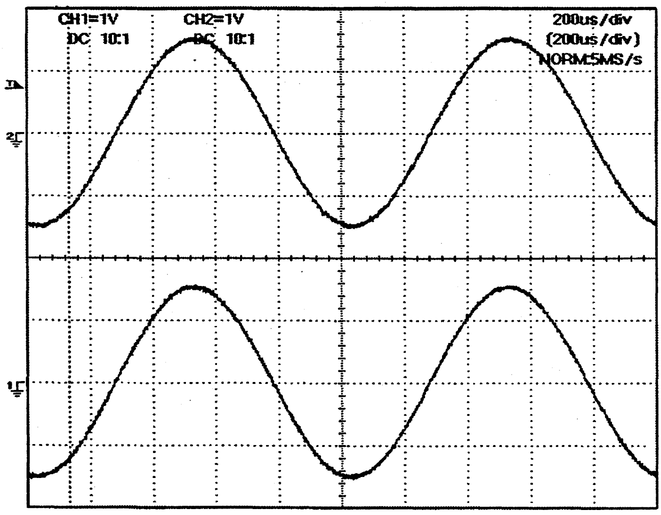
- **DVD Video Color Bar Signal**



CH1 : Ⓚ TP FSC →

- DVD Video : 1kHz, 0dB (48kHz and 16bit Sampling)

* The A1 Disk is used.

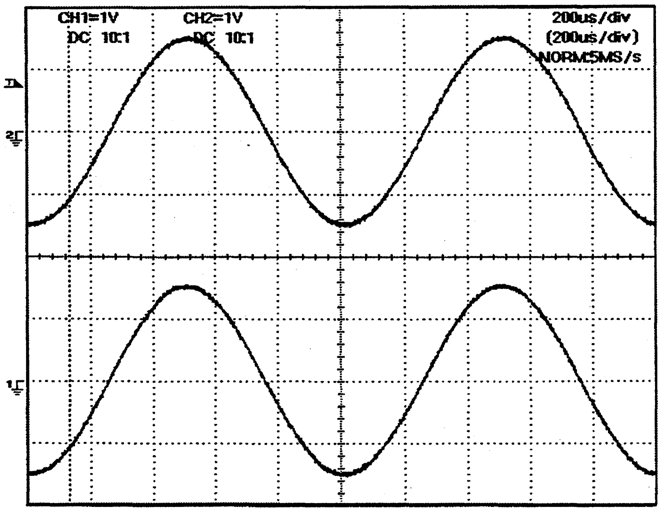


CH1 : Ⓛ TP Lch →

CH2 : Ⓜ TP Rch →

- DVD Video : 1kHz, 0dB (96kHz and 24bit Sampling)

* The A1 Disk is used.

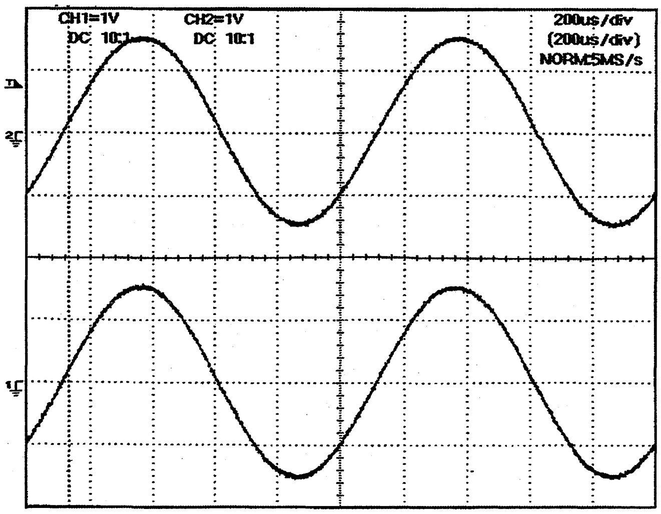


CH1 : Ⓛ TP Lch →

CH2 : Ⓜ TP Rch →

- CDDA : 1kHz, 0dB

* The TCD-785 Disk is used.

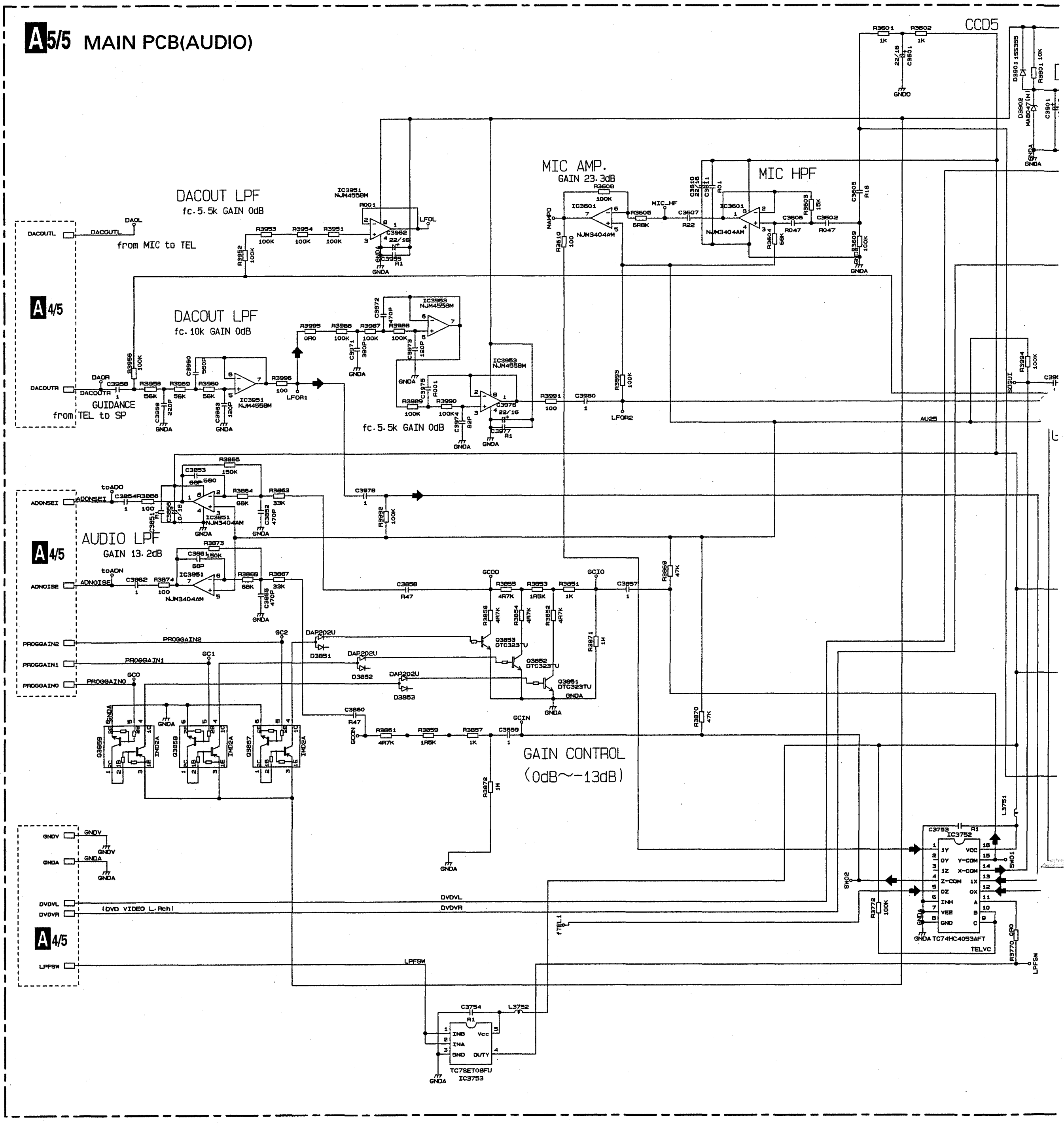


CH1 : Ⓛ TP Lch →

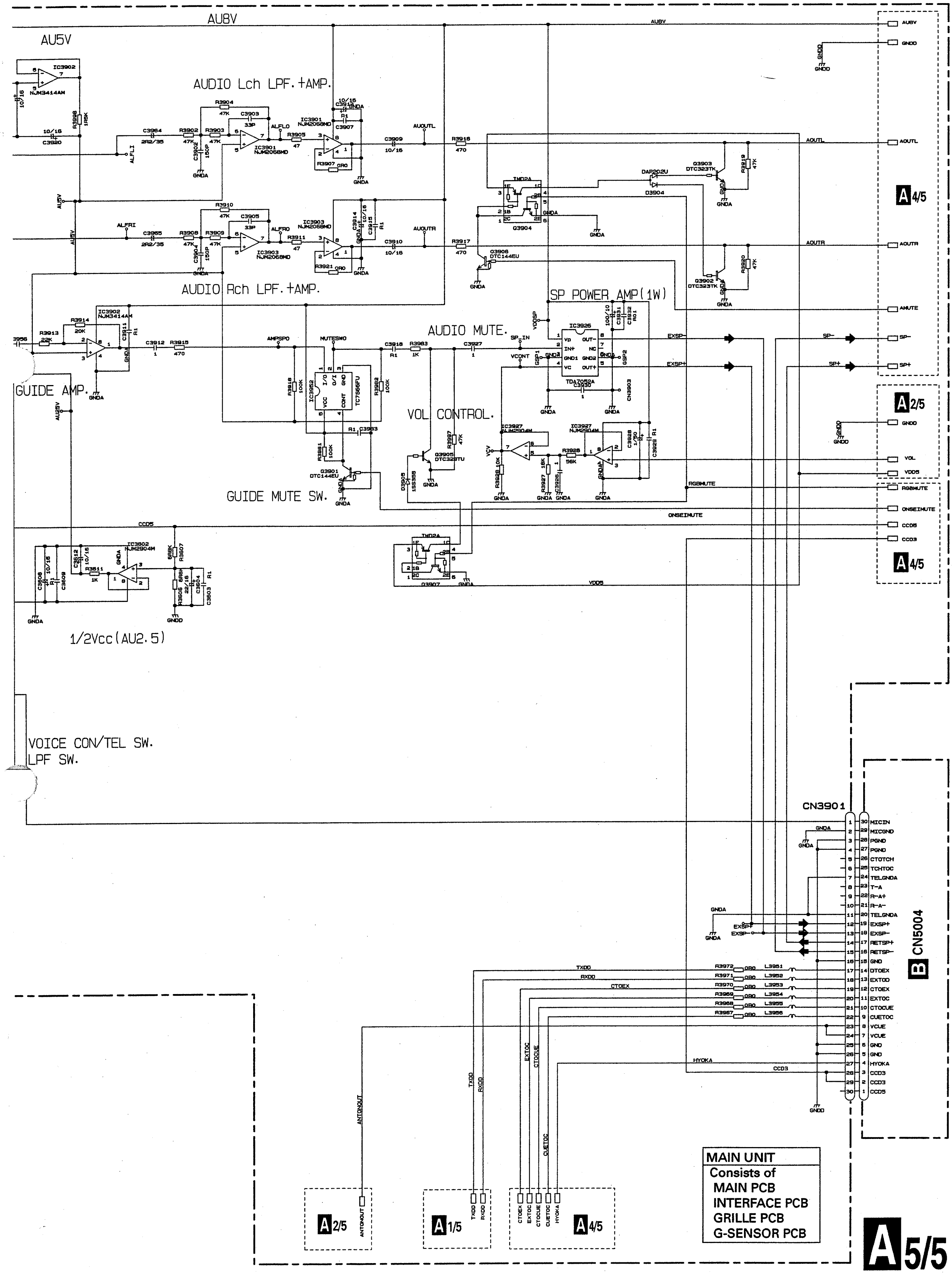
CH2 : Ⓜ TP Rch →

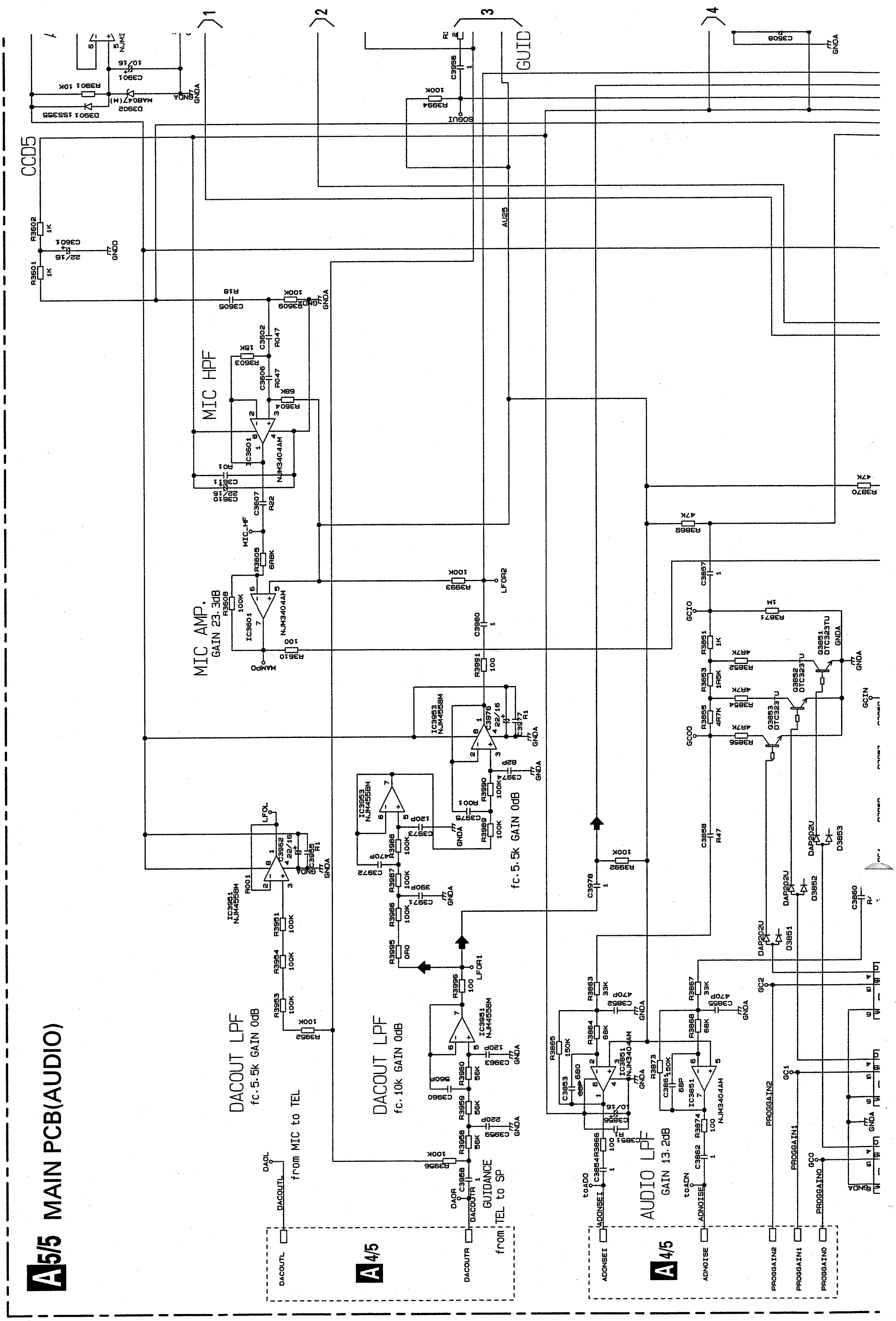
3.7 MAIN PCB 5/5 (AUDIO)(GUIDE PAGE)

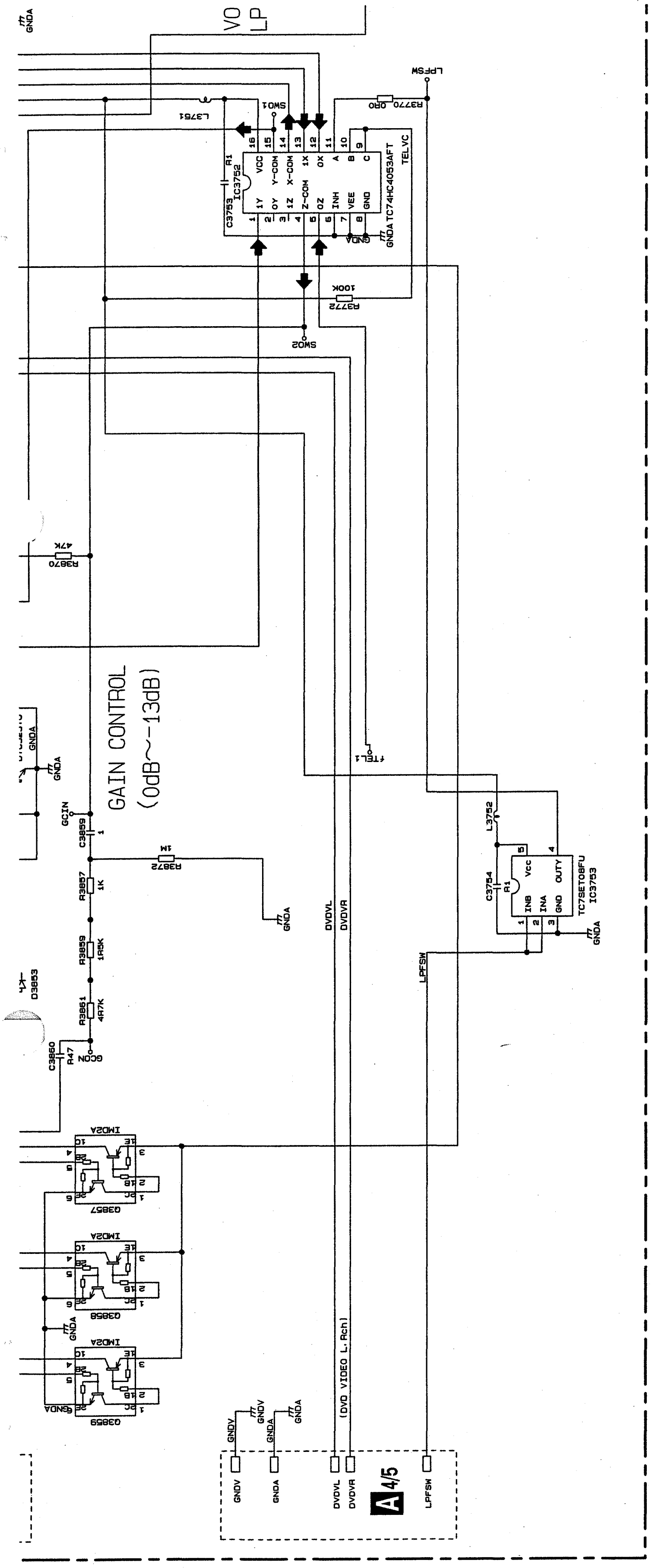
A-a 5/5


A5/5 MAIN PCB(AUDIO)
A4/5
A4/5
A4/5
DACOUT LPF
fc.5.5k GAIN 0dB
from MIC to TEL
DACOUT LPF
fc.10k GAIN 0dB
GUIDANCE
from TEL to SP
fc.5.5k GAIN 0dB
MIC AMP.
GAIN 23.3dB
MIC HPF
CCD5
AUDIO LPF
GAIN 13.2dB
GAIN CONTROL
(0dB~-13dB)
DACOUTL
DACOUTR
ADONSEI
ADNOISE
PROGGAIN2
PROGGAIN1
PROGGAIN0
GNDV
GNDA
DVDVL
DVDVR
(DVD VIDEO L.Rch)
LPFSW
IC3951 NJM4558M
IC3953 NJM4558M
IC3601 NJM3404AM
IC3851 NJM3404AM
IC3752 TC74HC4053AFT
IC3753 TC7SET08FU
Q3853 DTC323TU
Q3852 DTC323TU
Q3851 DTC323TU
Q3859 IMD2A
Q3858 IMD2A
Q3857 IMD2A
D3851 DAP202U
D3852 DAP202U
D3853 DAP202U
D3901 1SS355
D3902 MA8047(H)
LFOL
LFOR1
LFOR2
AU25
SOGUI
MIC_HF
MAMPO
GCOO
GCIO
GCIN
GC0
GC1
GC2
SWO1
SWO2
TEL1
TELVC
L3751
L3752

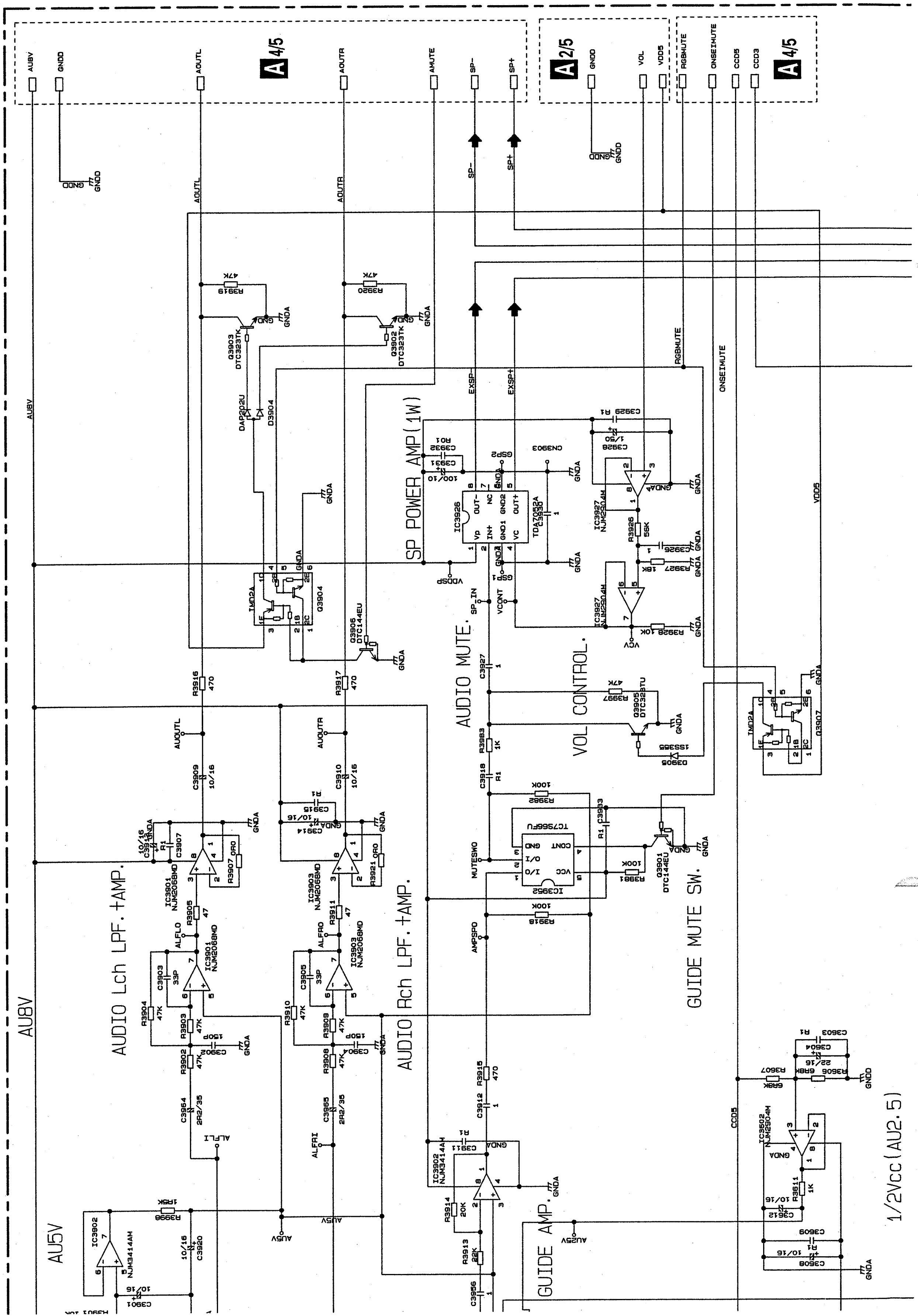
A-b 5/5

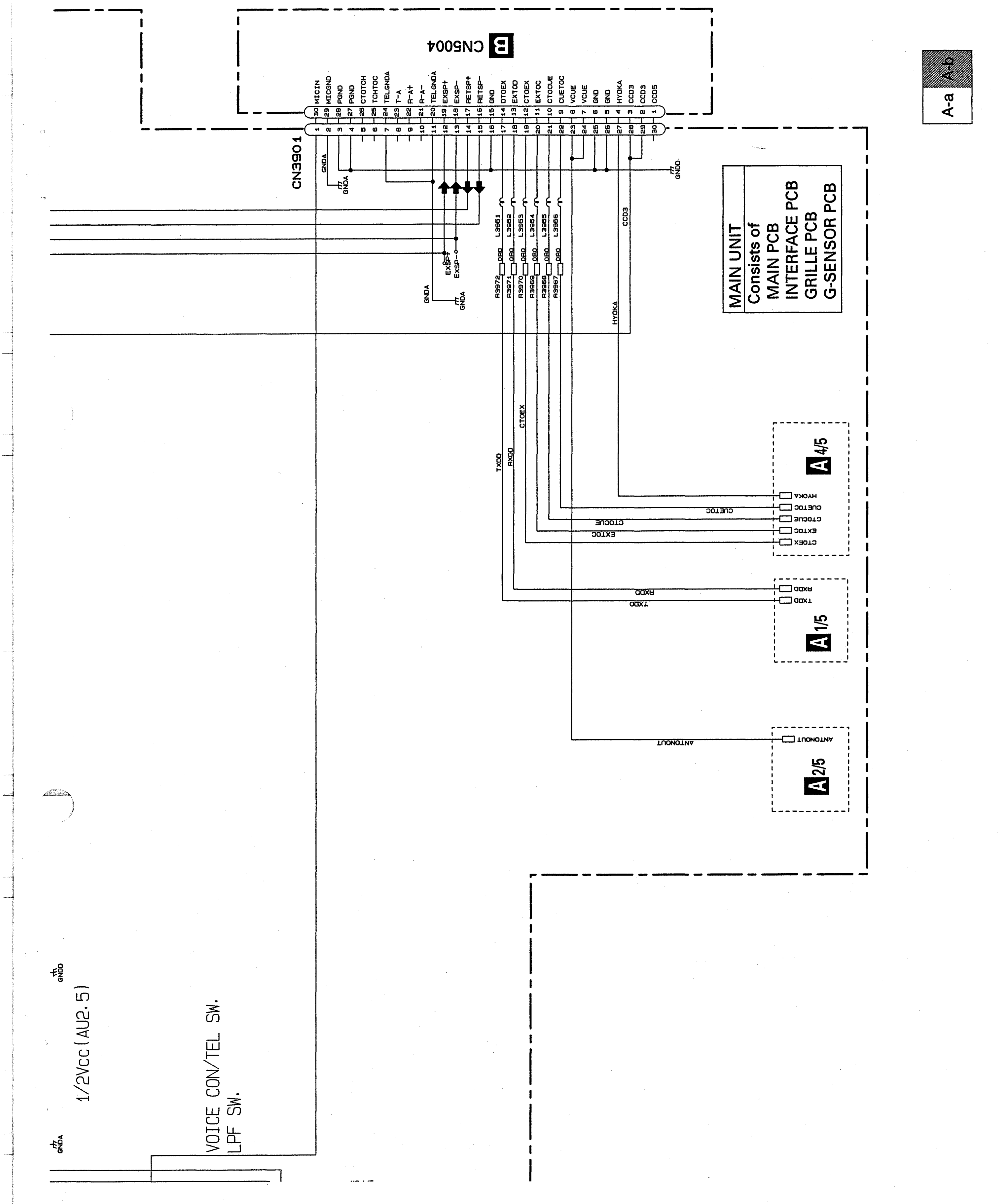

AU8V
AU5V
IC3902
NJM3414AM
AUDIO Lch LPF.+AMP.
IC3901
NJM2068MD
ALFLI
ALFLO
AUOUTL
C3909
R3916
470
TMD2A
DAP202U
D3904
Q3903
DTC323TK
Q3904
GNDA
AUDIO Rch LPF.+AMP.
IC3903
NJM2068MD
ALFRI
ALFRO
AUOUTR
C3910
R3917
470
Q3906
DTC144EU
Q3902
DTC323TK
R3919
R3920
47K
AOUTL
AOUTR
AMUTE
SP POWER AMP(1W)
IC3926
TDA7052A
EXSP-
EXSP+
SP-
SP+
GUIDE AMP.
AMPSPO
MUTESWO
AUDIO MUTE.
SP_IN
VCONT
IC3952
TC7S66FU
GUIDE MUTE SW.
Q3901
DTC144EU
VOL CONTROL.
Q3905
DTC323TU
D3905
1SS355
IC3927
NJM2904M
RGBMUTE
ONSEIMUTE
CCD5
CCD3
VDD5
IC3602
NJM2904M
Q3907
1/2Vcc(AU2.5)
VOICE CON/TEL SW.
LPF SW.
A 4/5
A 2/5
GNDD
VOL
AU8V
CN3901
MICIN
MICGND
PGND
CTOTCH
TCHTOC
TELGNDA
T-A
R-A+
R-A-
EXSP+
EXSP-
RETSP+
RETSP-
GND
DTOEX
EXTOD
CTOEX
EXTOC
CTOCUE
CUETOC
VCUE
HYOKA
B CN5004
TXDD
RXDD
ANTONOUT
A 2/5
A 1/5
A 4/5
MAIN UNIT
Consists of
MAIN PCB
INTERFACE PCB
GRILLE PCB
G-SENSOR PCB
A 5/5


A 5/5 MAIN PCB(AUDIO)
CCD5
GUID
MIC HPF
MIC AMP. GAIN 23.3dB
DACOUT LPF fc.5.5k GAIN 0dB
DACOUT LPF fc.10k GAIN 0dB
fc.5.5k GAIN 0dB
AUDIO LPF GAIN 13.2dB
from MIC to TEL
GUIDANCE from TEL to SP
A 4/5
DACOUTL
DACOUTR
ADONSEI
ADNOISE
PROGGAIN2
PROGGAIN1
PROGGAIN0
IC3601 NJM3404AM
IC3951 NJM4558M
IC3953 NJM4558M
IC3851 NJM3404AM
Q3851 DTC323TU
Q3852 DTC323TU
Q3853 DTC323TU
D3851 DAP202U
D3852 DAP202U
D3853 DAP202U
D3901 1SS355
D3902 MA8047(M)
MIC_HF
MAMPO
LFOR2
LFOR1
LFOL
AU25
GCIO
GCOO
GCIN
GC2
GC1
GCO
GNDA
GNDD
DAOL
DAOR
toADO
toADN
1
2
3
4
A
B
C
D

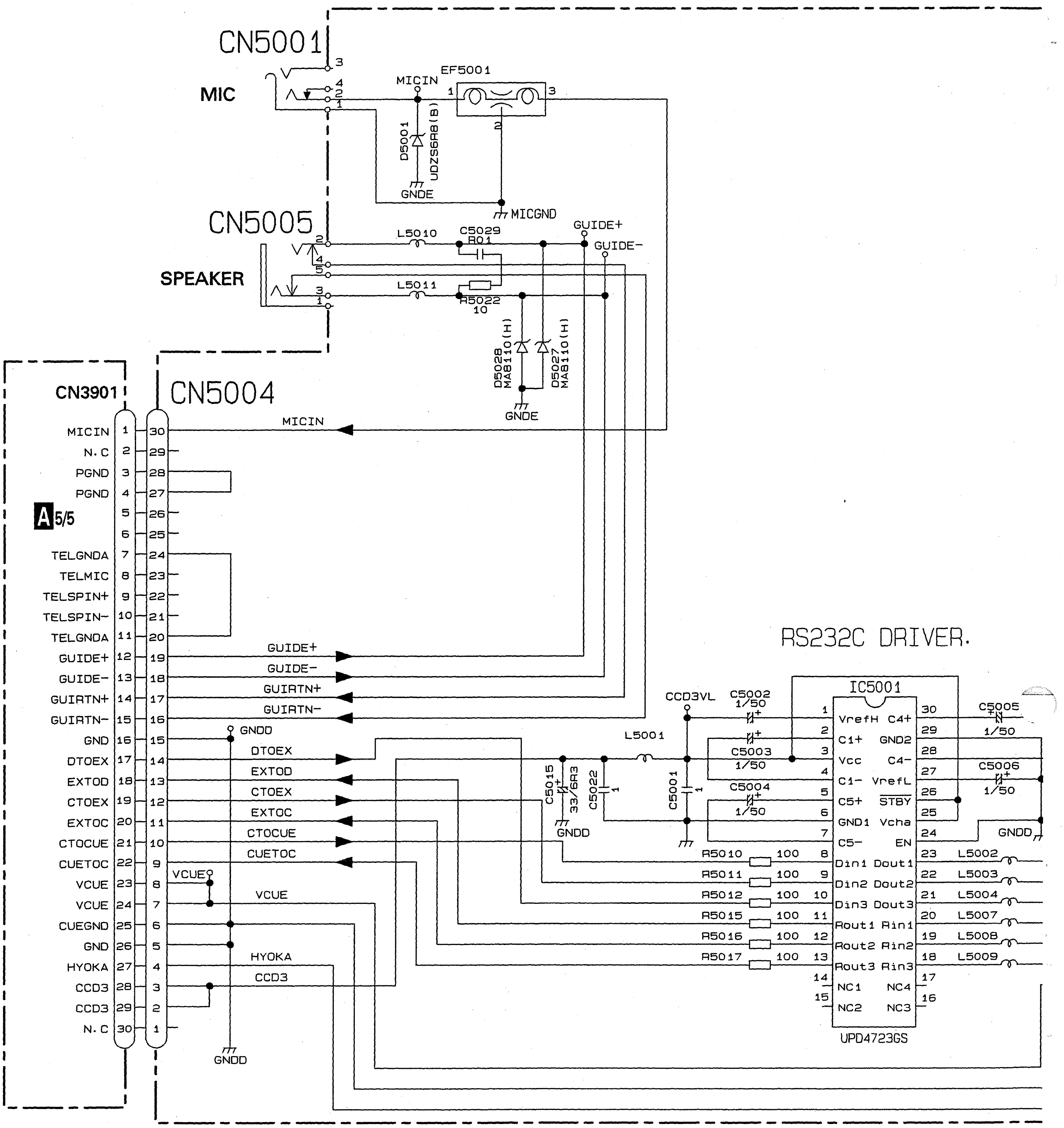

VO
LP
LPFSW
R3770 0R0
SW01
L3761
IC3752
TC74HC4053AFT
C3753
R1
VCC
Y-COM
X-COM
1X
0X
A
B
C
1Y
0Y
1Z
Z-COM
0Z
INH
VEE
GND
TEL VC
GNDA
R3772 100K
SW02
R3870 47K
GAIN CONTROL
(0dB~-13dB)
TEL1
L3752
IC3753
TC7SET08FU
C3754
INB
INA
Vcc
OUTY
C3859
GCIN
R3872 1M
R3857 1K
R3859 1R5K
R3861 4R7K
D3853
C3860
R47
GCON
DVDVL
DVDVR
(DVD VIDEO L.Rch)
IMD2A
Q3857
Q3858
Q3859
GNDV
GNDA
A 4/5

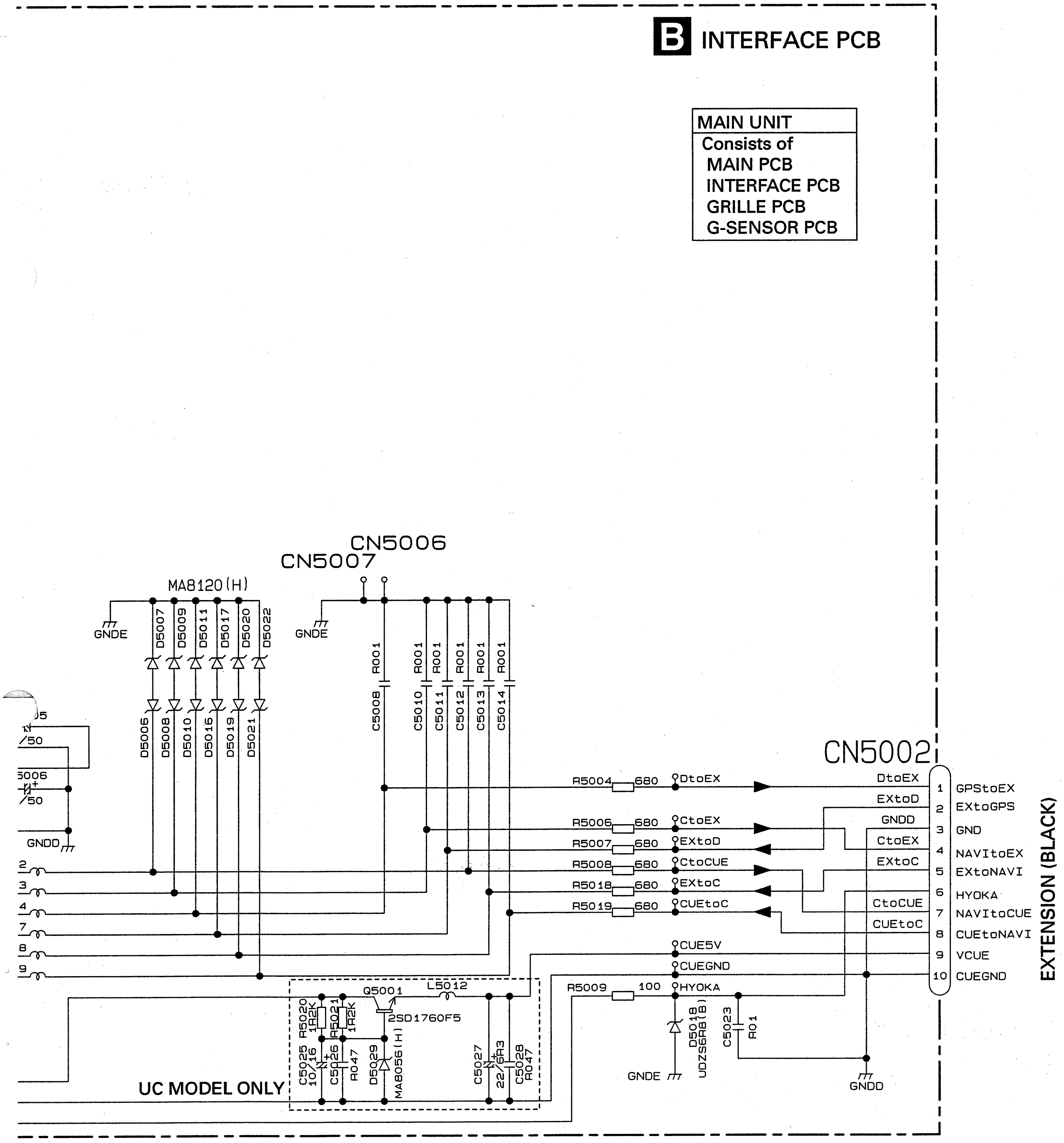
A
B
C
D


A 4/5
A 2/5
A 4/5
AU8V
GNDD
ADUTL
ADUTR
AMUTE
SP-
SP+
VOL
VDD5
RGBMUTE
ONSEIMUTE
CCD5
CCD3
SP POWER AMP(1W)
IC3926 TDA7052A
AUDIO MUTE.
VOL CONTROL.
IC3927 NJM2904M
IC3952 TC7S66FU
GUIDE MUTE SW.
AUDIO Lch LPF.+AMP.
IC3901 NJM2068MD
AUDIO Rch LPF.+AMP.
IC3903 NJM2068MD
GUIDE AMP.
IC3902 NJM3414AM
AU5V
1/2Vcc(AU2.5)
IC3502 NJM2904M
Q3903 DTC323TK
Q3902 DTC323TK
Q3904 IMD2A
Q3905 DTC144EU
Q3907 IMD2A
Q3901 DTC144EU
D3904 DAP202U
D3905 1SS355
1
2
3
4

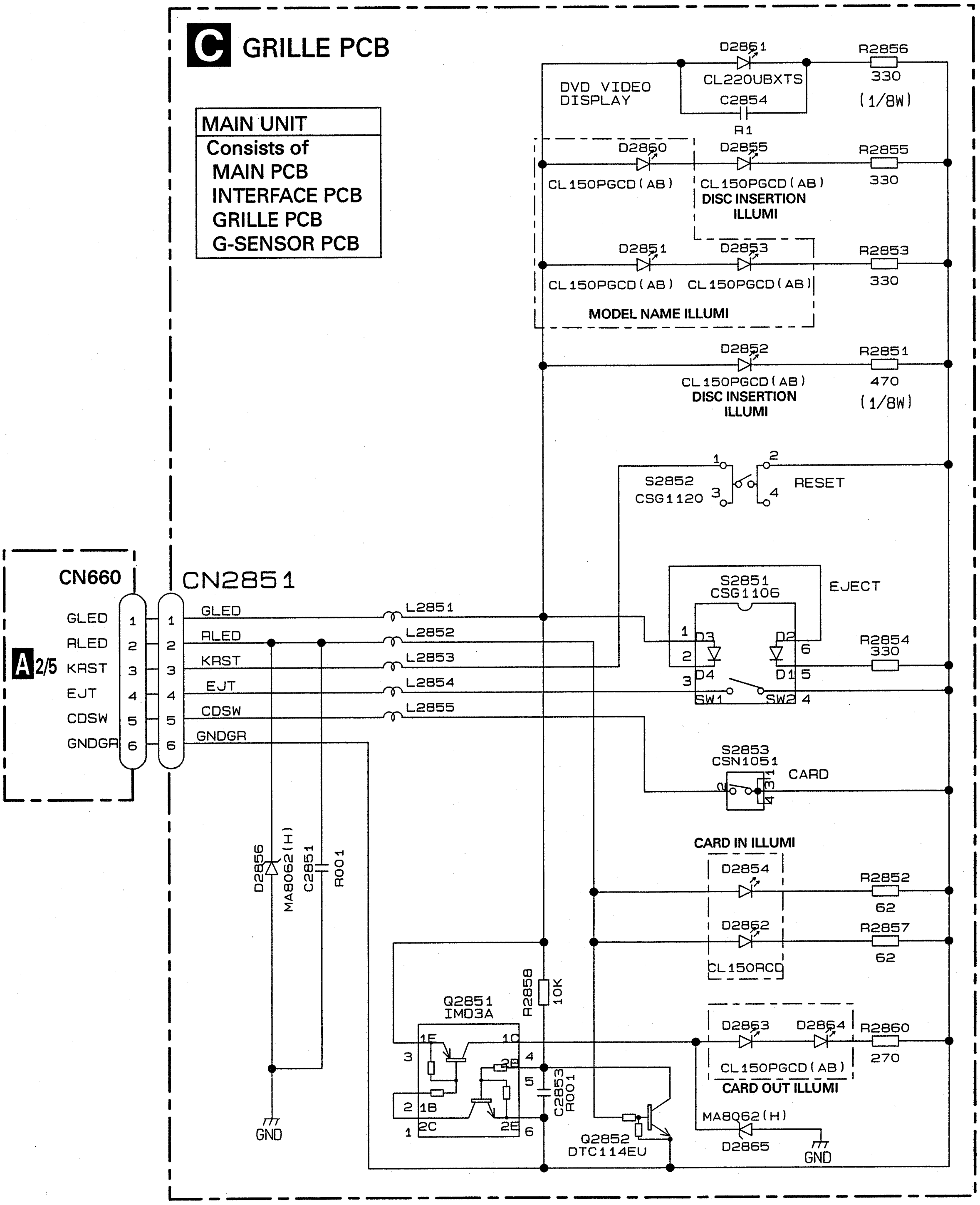

B CN5004
MICIN
MICGND
PGND
PGND
CTOTCH
TCHTOC
TELGNDA
T-A
R-A+
R-A-
TELGNDA
EXSP+
EXSP-
RETSP+
RETSP-
GND
DTOEX
EXTOD
CTOEX
EXTOC
CTOCUE
CUETOC
VCUE
VCUE
GND
GND
HYOKA
CCD3
CCD3
CCD5
CN3901
GNDA
GNDD
L3951
L3952
L3953
L3954
L3955
L3956
R3972
R3971
R3970
R3969
R3968
R3967
0R0
EXSP+
EXSP-
HYOKA
CCD3
CTOEX
TXDD
RXDD
CUETOC
CTOCUE
EXTOC
ANTONOUT
MAIN UNIT
Consists of
MAIN PCB
INTERFACE PCB
GRILLE PCB
G-SENSOR PCB
A 4/5
A 1/5
A 2/5
1/2Vcc(AU2.5)
VOICE CON/TEL SW.
LPF SW.

3.8 INTERFACE PCB

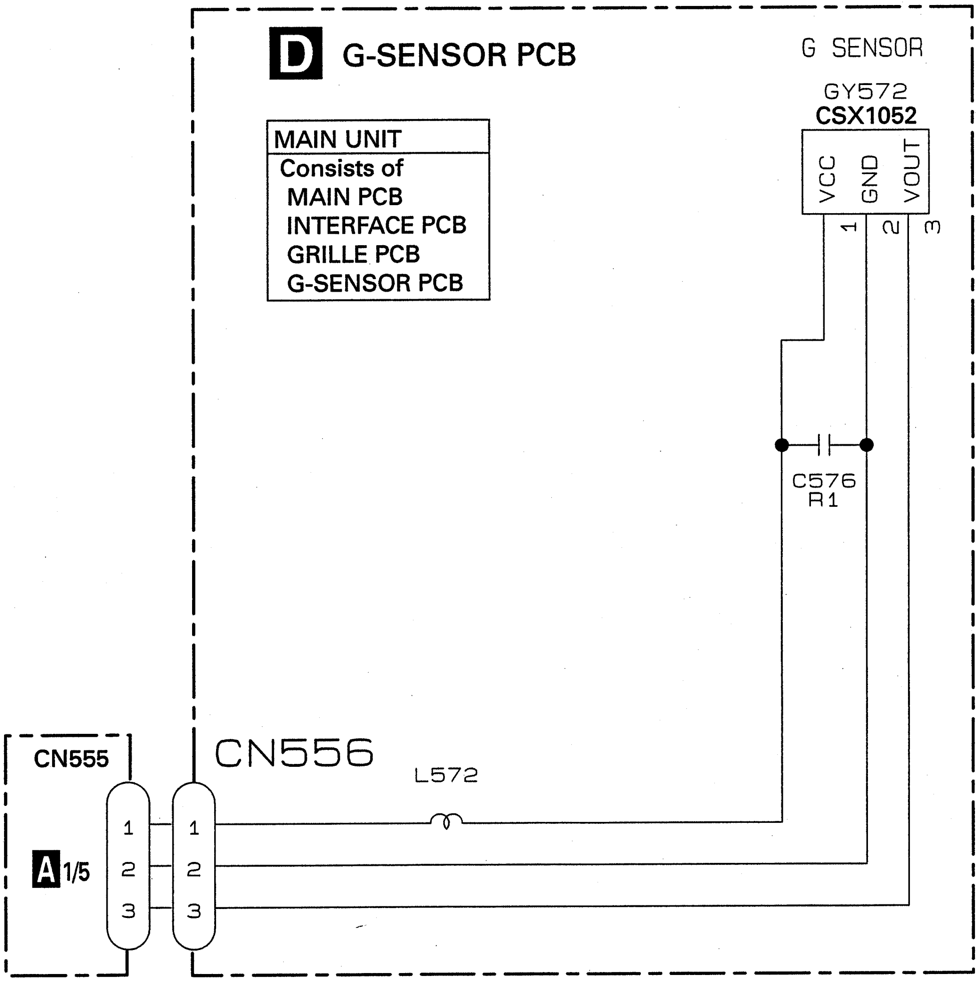

CN5001
MIC
EF5001
MICIN
D5001
UDZS6R8(B)
GNDE
MICGND
CN5005
SPEAKER
L5010
C5029
R01
GUIDE+
GUIDE−
L5011
R5022
10
D5028
MA8110(H)
D5027
MA8110(H)
GNDE
CN3901
CN5004
A 5/5
MICIN
N.C
PGND
PGND
TELGNDA
TELMIC
TELSPIN+
TELSPIN−
TELGNDA
GUIDE+
GUIDE−
GUIRTN+
GUIRTN−
GND
DTOEX
EXTOD
CTOEX
EXTOC
CTOCUE
CUETOC
VCUE
VCUE
CUEGND
GND
HYOKA
CCD3
CCD3
N.C
GNDD
VCUE
GNDD
RS232C DRIVER.
IC5001
UPD4723GS
CCD3VL
C5002
1/50
C5003
1/50
C5004
1/50
C5005
1/50
C5006
1/50
L5001
C5015
33/6R3
C5022
1
C5001
1
GNDD
VrefH
C4+
C1+
GND2
Vcc
C4−
C1−
VrefL
C5+
STBY
GND1
Vcha
C5−
EN
Din1
Dout1
Din2
Dout2
Din3
Dout3
Rout1
Rin1
Rout2
Rin2
Rout3
Rin3
NC1
NC4
NC2
NC3
R5010 100
R5011 100
R5012 100
R5015 100
R5016 100
R5017 100
L5002
L5003
L5004
L5007
L5008
L5009
GNDD


B INTERFACE PCB
MAIN UNIT
Consists of
MAIN PCB
INTERFACE PCB
GRILLE PCB
G-SENSOR PCB
CN5006
CN5007
MA8120(H)
GNDE
D5007
D5009
D5011
D5017
D5020
D5022
D5006
D5008
D5010
D5016
D5019
D5021
R001
C5008
C5010
C5011
C5012
C5013
C5014
5006
/50
GNDD
2
3
4
7
8
9
CN5002
R5004 680 DtoEX
R5006 680 CtoEX
R5007 680 EXtoD
R5008 680 CtoCUE
R5018 680 EXtoC
R5019 680 CUEtoC
CUE5V
CUEGND
R5009 100 HYOKA
DtoEX
EXtoD
GNDD
CtoEX
EXtoC
CtoCUE
CUEtoC
1 GPStoEX
2 EXtoGPS
3 GND
4 NAVItoEX
5 EXtoNAVI
6 HYOKA
7 NAVItoCUE
8 CUEtoNAVI
9 VCUE
10 CUEGND
EXTENSION (BLACK)
Q5001
2SD1760F5
L5012
R5020 1R2K
R5021 1R2K
C5025 10/16
C5026
R047
D5029
MA8056(H)
C5027 22/6R3
C5028 R047
D5018 UDZS6R8(B)
C5023 R01
GNDE
GNDD
UC MODEL ONLY

3.9 GRILLE PCB


C GRILLE PCB
MAIN UNIT
Consists of
MAIN PCB
INTERFACE PCB
GRILLE PCB
G-SENSOR PCB
DVD VIDEO DISPLAY
D2861
CL220UBXTS
C2854
R1
R2856
330
(1/8W)
D2860
CL150PGCD(AB)
D2855
CL150PGCD(AB)
DISC INSERTION ILLUMI
R2855
330
D2851
CL150PGCD(AB)
D2853
CL150PGCD(AB)
MODEL NAME ILLUMI
R2853
330
D2852
CL150PGCD(AB)
DISC INSERTION ILLUMI
R2851
470
(1/8W)
S2852
CSG1120
RESET
1 2 3 4
S2851
CSG1106
EJECT
D3 D2 D4 D1
SW1 SW2
1 2 3 4 5 6
R2854
330
S2853
CSN1051
CARD
CARD IN ILLUMI
D2854
D2862
CL150RCD
R2852
62
R2857
62
CN660
A 2/5
GLED
RLED
KRST
EJT
CDSW
GNDGR
CN2851
1 2 3 4 5 6
L2851
L2852
L2853
L2854
L2855
D2856
MA8062(H)
C2851
R001
GND
R2858
10K
Q2851
IMD3A
1E 1C 1B 2B 2C 2E
1 2 3 4 5 6
C2853
R001
Q2852
DTC114EU
D2863
D2864
CL150PGCD(AB)
CARD OUT ILLUMI
R2860
270
MA8062(H)
D2865
GND

3.10 G-SENSOR PCB


D G-SENSOR PCB
MAIN UNIT
Consists of
MAIN PCB
INTERFACE PCB
GRILLE PCB
G-SENSOR PCB
G SENSOR
GY572
CSX1052
VCC
GND
VOUT
1
2
3
C576
R1
CN555
A 1/5
CN556
L572
1
2
3

3.11 CC UNIT 1/6 (CPU, ASIC, SDRAM)(GUIDE PAGE)

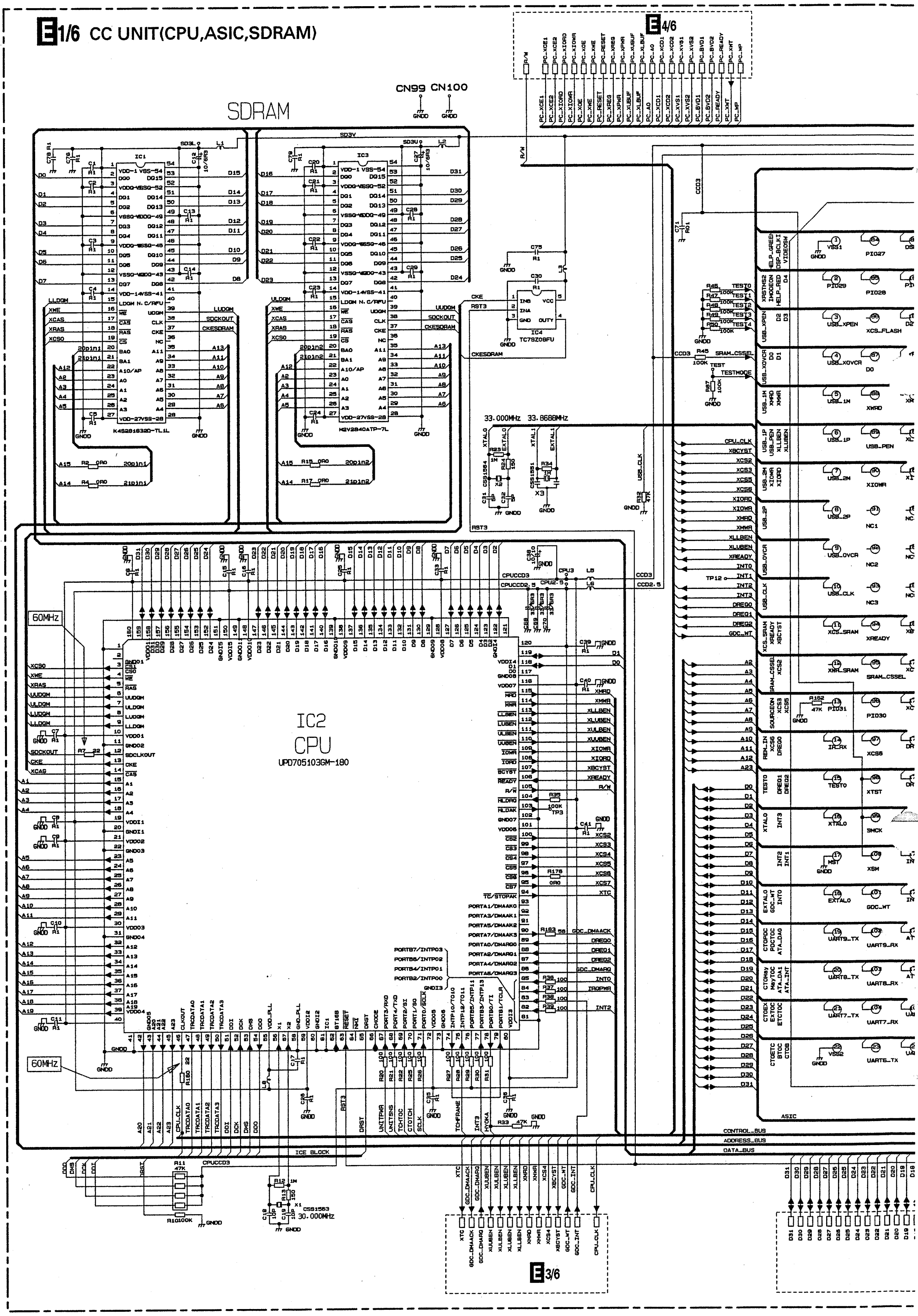
E-a 1/6

A

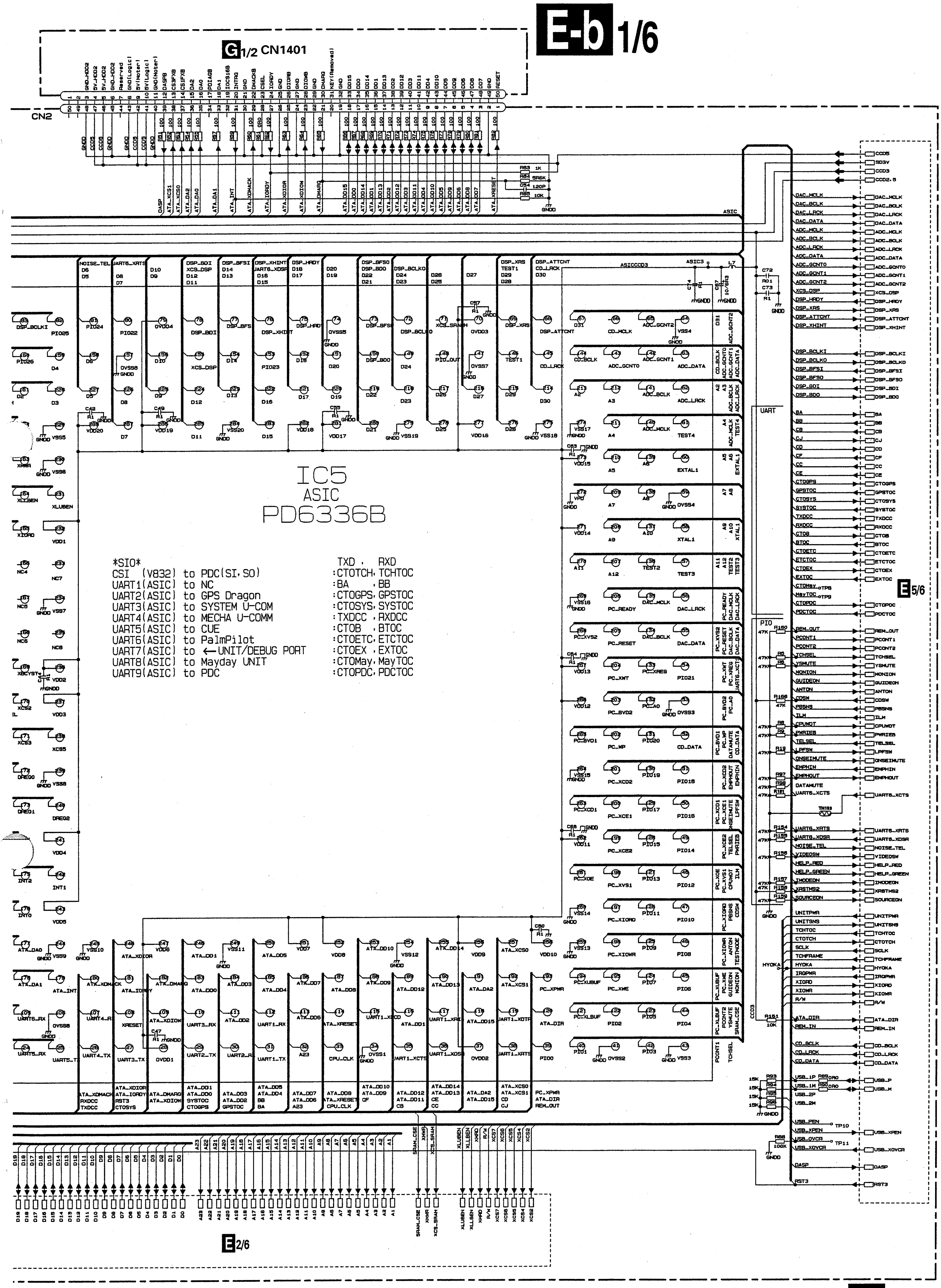
B

C

D


E 1/6 CC UNIT(CPU,ASIC,SDRAM)
E 4/6
CN99 CN100
SDRAM
IC1
K4S281632D-TL1L
IC3
H2V2840ATP-7L
IC4
TC7SZ08FU
33.000MHz 33.8688MHz
60MHz
IC2
CPU
UPD705103GM-180
60MHz
ICE BLOCK
CONTROL_BUS
ADDRESS_BUS
DATA_BUS
ASIC
CSB1583
30.000MHz
E 3/6

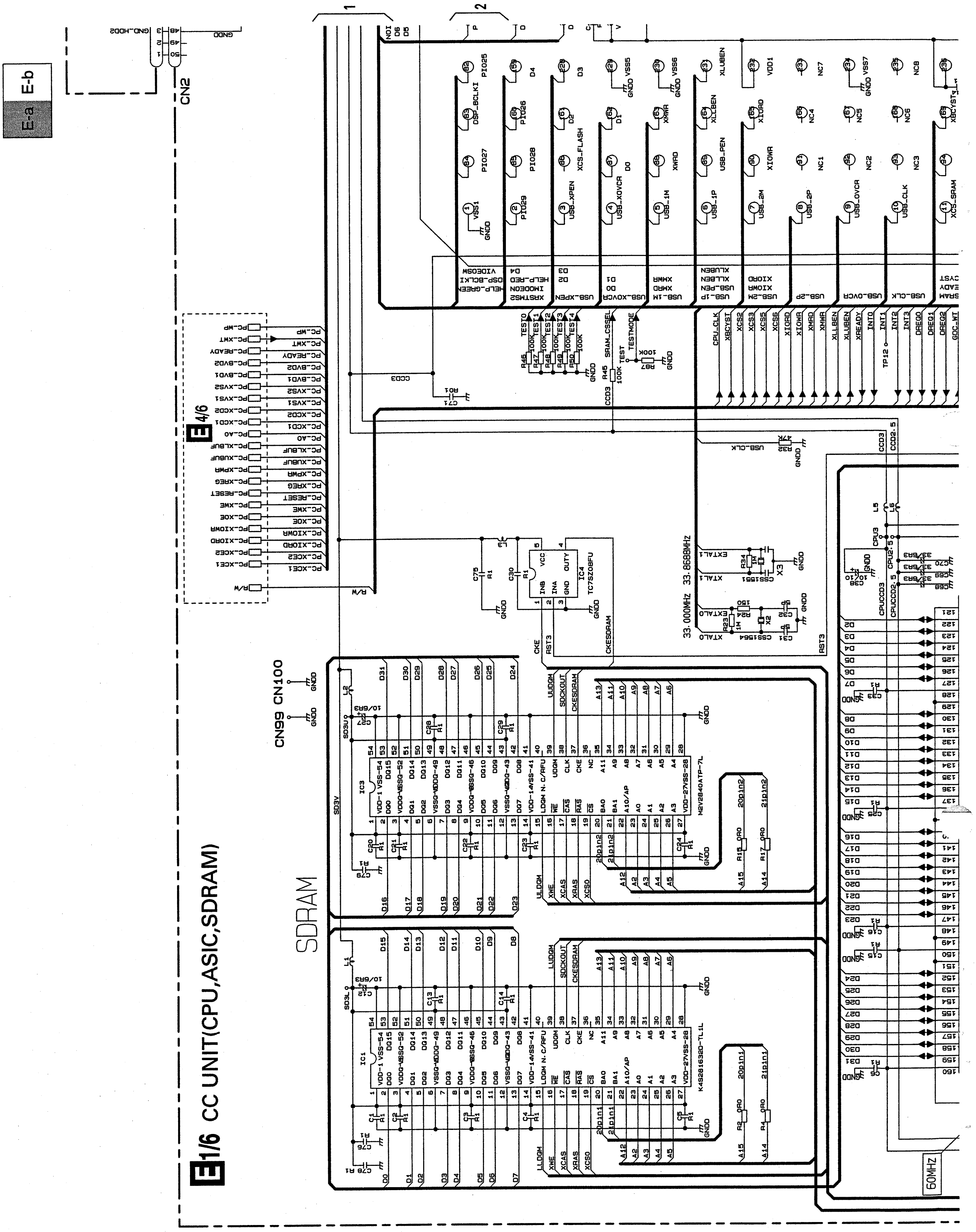
E-b 1/6

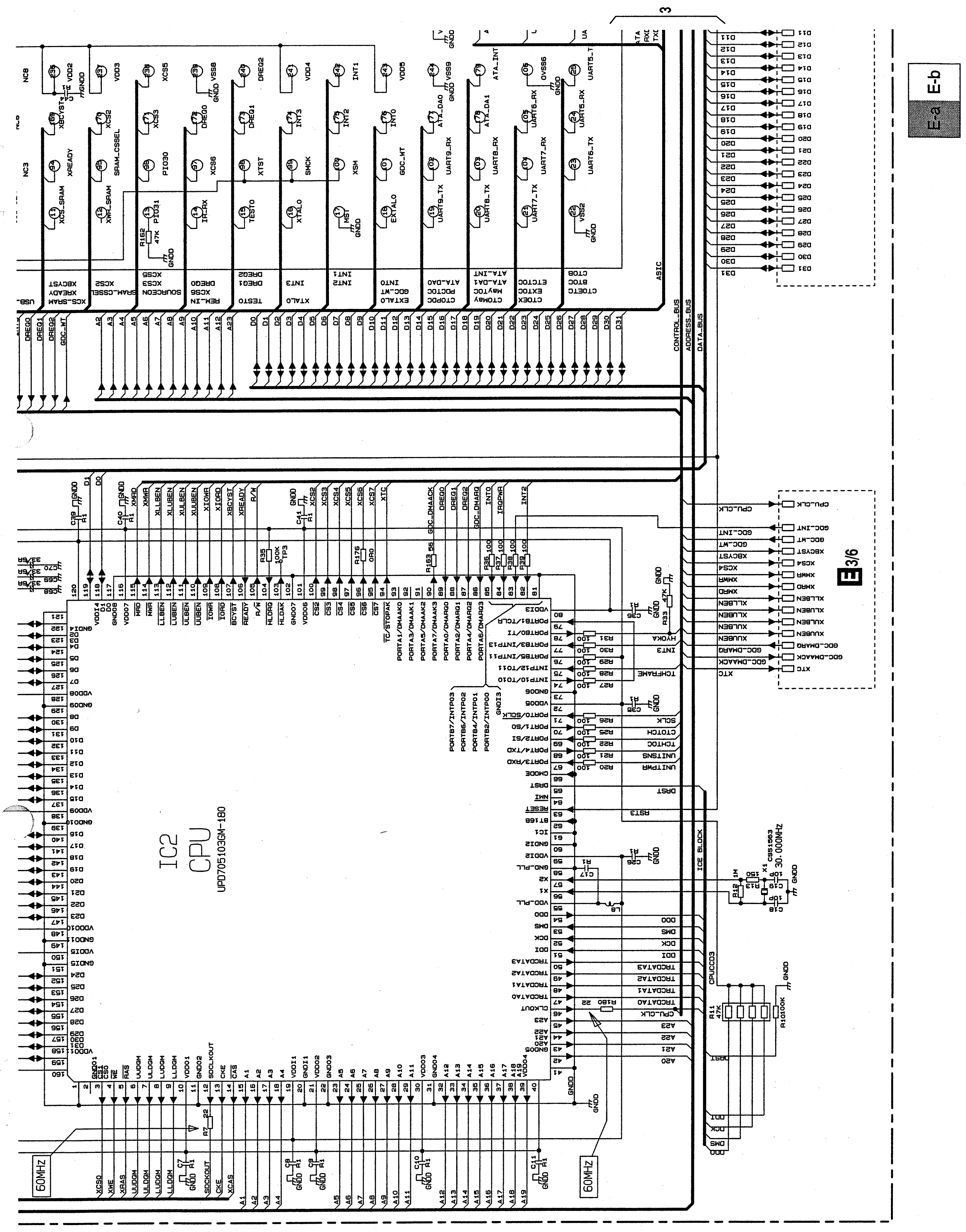

G 1/2 CN1401
CN2
GND_HDD2
5V_HDD2
5V_HDD2
GND_HDD2
Reserved
GND(Logic)
5V(Note)
5V(Logic)
GND(Note)
DASPB
CS3FXB
CS1FXB
DA2
DA0
PDIAGB
DA1
IOCS16B
INTRQ
DMACKB
CSEL
IORDY
DIORB
DIOWB
DMARQ
KEY(Removed)
RESET
ASIC
ASICCCD3
ASIC3
UART
PIO
IC5
ASIC
PD6336B
CCD5
SD3V
CCD3
CCD2.5
DAC_MCLK
DAC_BCLK
DAC_LRCK
DAC_DATA
ADC_MCLK
ADC_BCLK
ADC_LRCK
ADC_DATA
ADC_GCNT0
ADC_GCNT1
ADC_GCNT2
XCS_DSP
DSP_HRDY
DSP_XRS
DSP_ATTCNT
DSP_XHINT
DSP_BCLKI
DSP_BCLKO
DSP_BFSI
DSP_BFSO
DSP_BDI
DSP_BDO
BA
BB
CTOGPS
GPSTOC
CTOSYS
SYSTOC
TXDCC
RXDCC
CTOB
BTOC
CTOETC
ETCTOC
CTOEX
EXTOC
CTOPDC
PDCTOC
E 5/6
REM_OUT
PCONT1
PCONT2
TCHSEL
YSMUTE
MONION
GUIDEON
ANTON
CDSW
PBSNS
ILM
CPUMOT
PWRIEB
TELSEL
LPFSW
ONSEIMUTE
EMPHIN
EMPHOUT
DATAMUTE
UART6_XCTS
UART6_XRTS
UART6_XDSR
NOISE_TEL
VIDEOSW
HELP_RED
HELP_GREEN
IMODEON
XRSTMS2
SOURCEON
UNITPWR
UNITSNS
TCHTOC
CTOTCH
SCLK
TCHFRAME
HYOKA
IROPWR
XIORD
XIOWR
R/W
ATA_DIR
REM_IN
CD_BCLK
CD_LRCK
CD_DATA
USB_P
USB_M
USB_XPEN
USB_XOVCR
DASP
RST3
TP10
TP11
E 2/6
D19 D18 D17 D16 D15 D14 D13 D12 D11 D10 D9 D8 D7 D6 D5 D4 D3 D2 D1 D0
A23 A22 A21 A20 A19 A18 A17 A16 A15 A14 A13 A12 A11 A10 A9 A8 A7 A6 A5 A4 A3 A2 A1
SRAM_CSE
XHWR
XCS_SRAM
XLUBEN
XLLBEN
XHWR
R/W
XCS7
XCS6
XCS5
XCS4
XCS2

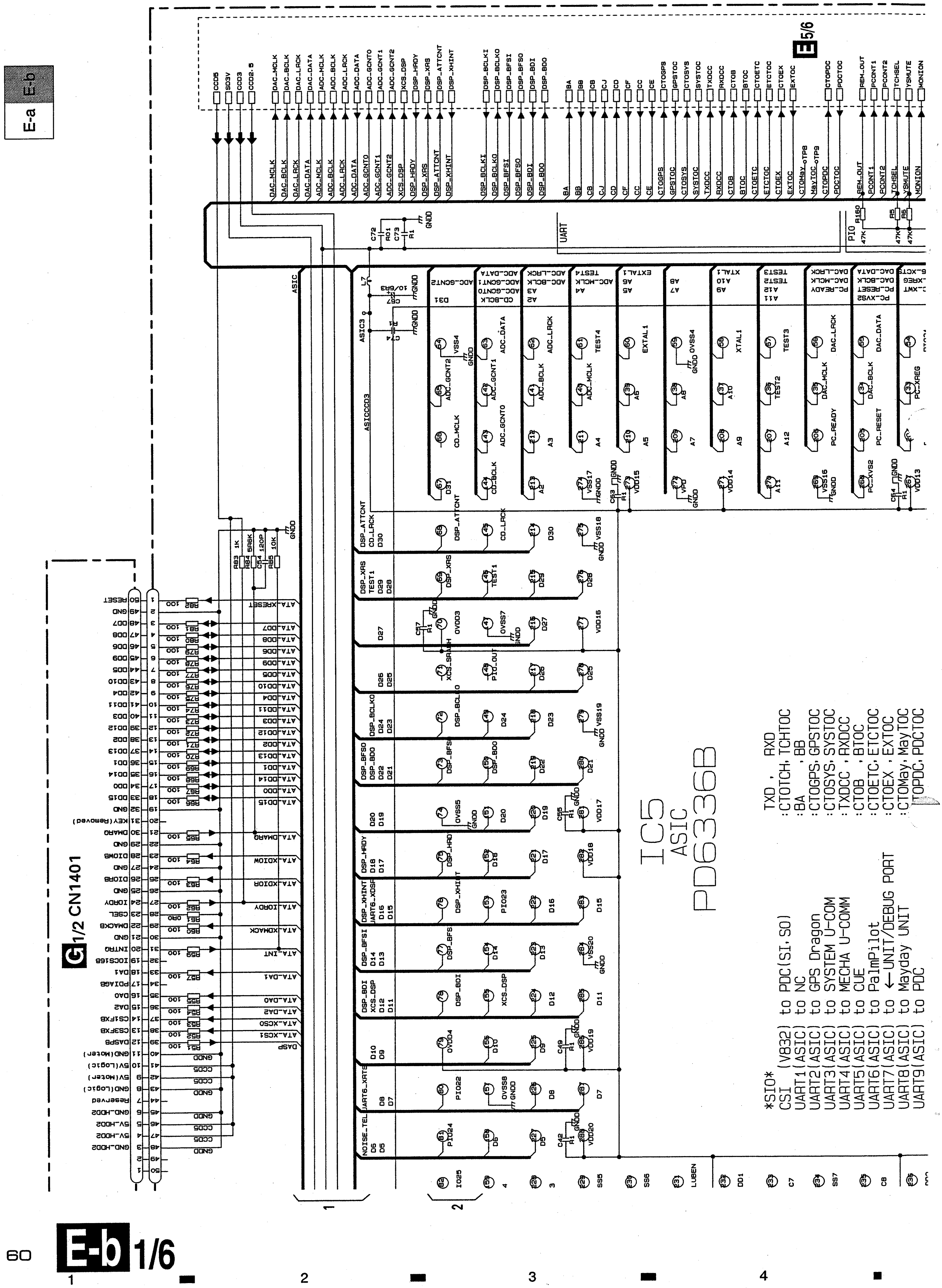
SIO	TXD , RXD
CSI (V832) to PDC(SI, SO)	:CTOTCH, TCHTOC
UART1(ASIC) to NC	:BA , BB
UART2(ASIC) to GPS Dragon	:CTOGPS, GPSTOC
UART3(ASIC) to SYSTEM U-COM	:CTOSYS, SYSTOC
UART4(ASIC) to MECHA U-COMM	:TXDCC , RXDCC
UART5(ASIC) to CUE	:CTOB , BTOC
UART6(ASIC) to PalmPilot	:CTOETC, ETCTOC
UART7(ASIC) to ←UNIT/DEBUG PORT	:CTOEX , EXTOC
UART8(ASIC) to Mayday UNIT	:CTOMay, MayTOC
UART9(ASIC) to PDC	:CTOPDC, PDCTOC

E 1/6

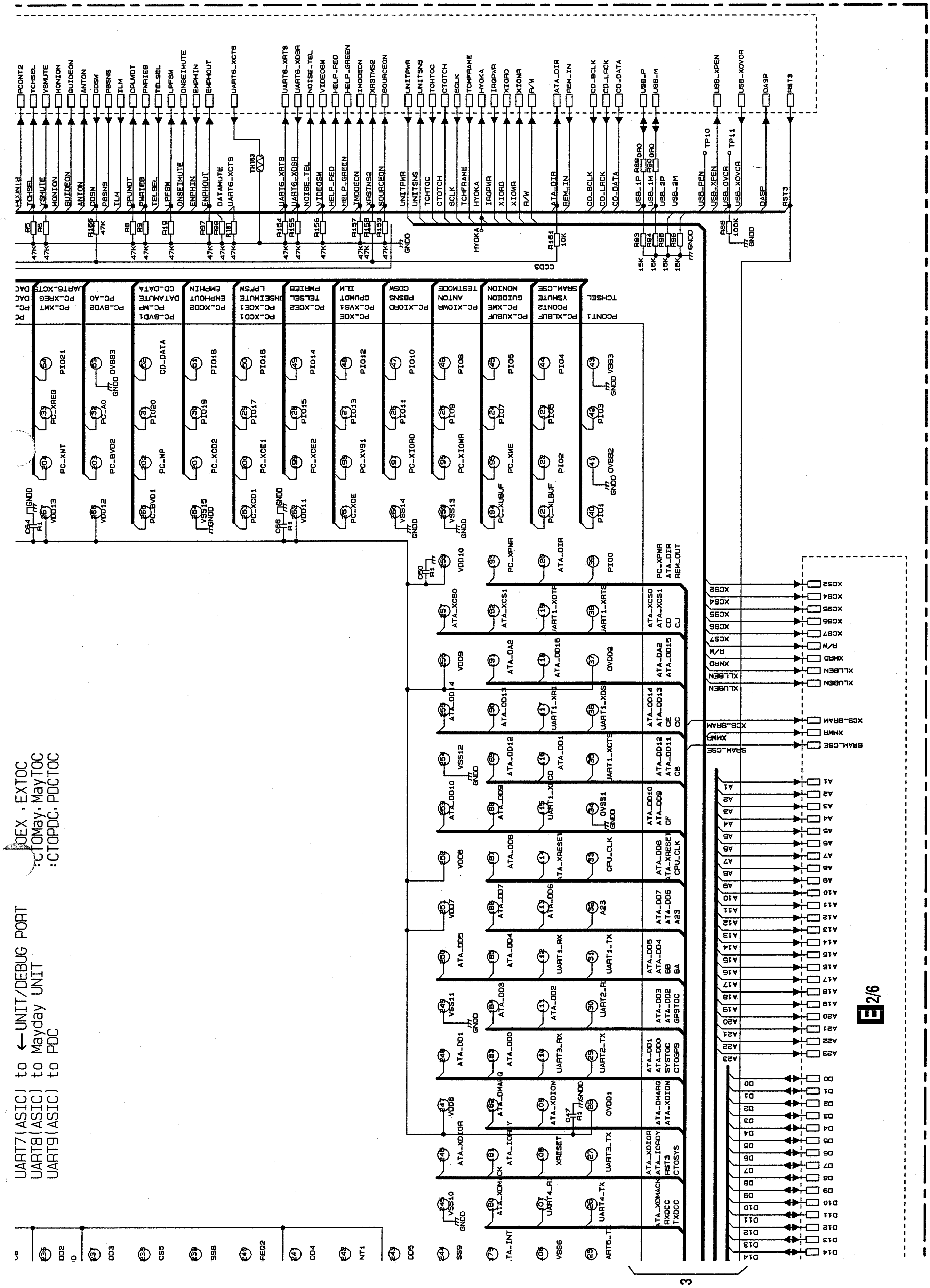
E 1/6 CC UNIT(CPU,ASIC,SDRAM)


E-b
E-a
CN2
E 4/6
PC-XCE1
PC-XCE2
PC-XIORD
PC-XIOWR
PC-XOE
PC-XWE
PC-RESET
PC-XREG
PC-XPWR
PC-XUBUF
PC-XLBUF
PC-A0
PC-XCD1
PC-XCD2
PC-XVS1
PC-XVS2
PC-BVD1
PC-BVD2
PC-READY
PC-XWT
PC-WP
R/W
CN99 CN100
GNDD
SDRAM
IC1
K4S281632D-TL1L
IC3
M2V28408ATP-7L
IC4
TC7SZ08FU
SD3V
SD3U
SD3L
CKE
RST3
CKESDRAM
XTAL0
EXTAL0
XTAL1
EXTAL1
33.000MHz 33.8688MHz
CSS1564
CSS1551
X2
X3
USB-CLK
CCD3
CCD2.5
CPUCCD3
CPUCCD2.5
CPU3
L5
L6
TEST
TESTMODE
SRAM_CSSEL
60MHz

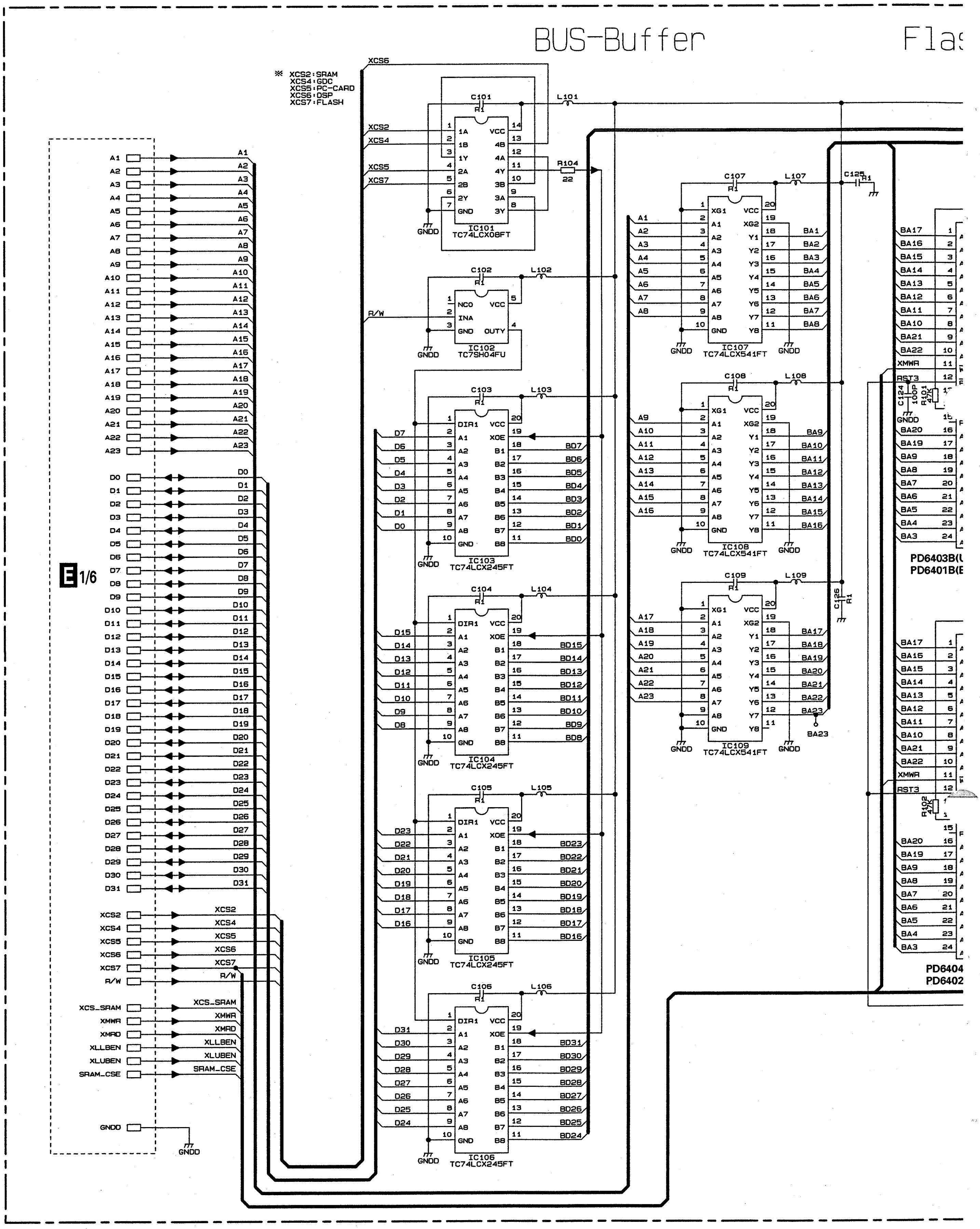

IC2
CPU
UPD705103GM-180
ASIC
CONTROL_BUS
ADDRESS_BUS
DATA_BUS
ICE BLOCK
E 3/6
X1
CSS1563
30.000MHz
60MHz
60MHz
CPU-CLK
GDC-INT
GDC-WT
XBCYST
XCS4
XMWR
XMRD
XLLBEN
XLUBEN
XULBEN
XUUBEN
GDC-DMARQ
GDC-DMAACK
XTC
GNDD


E-a
E-b
E 5/6
G 1/2 CN1401
IC5
ASIC
PD6336B
ASIC
UART
PIO
A
B
C
D

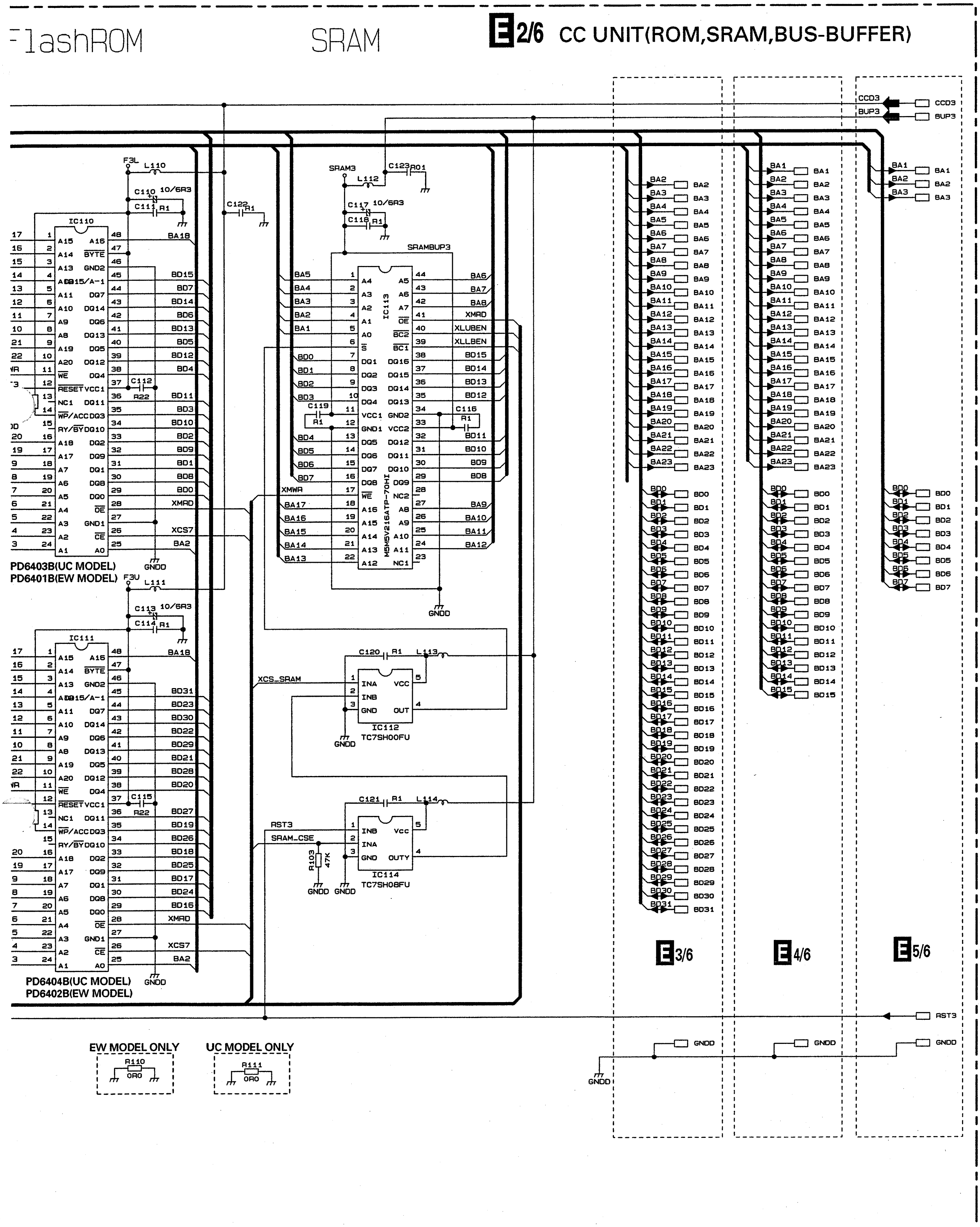
SIO			
CSI (V832)	to	PDC(SI,SO)	TXD , RXD
UART1(ASIC)	to	NC	:CTOTCH, TCHTOC
UART2(ASIC)	to	GPS Dragon	:BA , BB
UART3(ASIC)	to	SYSTEM U-COM	:CTOGPS, GPSTOC
UART4(ASIC)	to	MECHA U-COMM	:CTOSYS, SYSTOC
UART5(ASIC)	to	CUE	:TXDCC , RXDCC
UART6(ASIC)	to	PalmPilot	:CTOB , BTOC
UART7(ASIC)	to	←UNIT/DEBUG PORT	:CTOETC, ETCTOC
UART8(ASIC)	to	Mayday UNIT	:CTOEX , EXTOC
UART9(ASIC)	to	PDC	:CTOMay, MayTOC
			TOPDC, PDCTOC


UART7(ASIC) to ←UNIT/DEBUG PORT
UART8(ASIC) to Mayday UNIT
UART9(ASIC) to PDC
:DEX , EXTOC
:CTOMay, MayTOC
:CTOPDC, PDCTOC
PCONT2
TCHSEL
YSMUTE
MONION
GUIDEON
ANTON
CDSW
PBSNS
ILM
CPUWDT
PWRIEB
TELSEL
LPFSW
ONSEIMUTE
EMPHIN
EMPHOUT
UART6_XCTS
UART6_XRTS
UART6_XDSR
NOISE_TEL
VIDEOSW
HELP_RED
HELP_GREEN
IMODEON
XRSTMS2
SOURCEON
UNITPWR
UNITSNS
TCHTOC
CTOTCH
SCLK
TCHFRAME
HYOKA
IRQPWR
XIORD
XIOWR
R/W
ATA_DIR
REM_IN
CD_BCLK
CD_LRCK
CD_DATA
USB_P
USB_M
USB_XPEN
USB_XOVCR
DASP
RST3
TP10
TP11
TH163
CCD3
GNDD
XCS2
XCS4
XCS5
XCS6
XCS7
XWRD
XLLBEN
XCS-SRAM
XMWR
SRAM-CSE
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
A13
A14
A15
A16
A17
A18
A19
A20
A21
A22
A23
D0
D1
D2
D3
D4
D5
D6
D7
D8
D9
D10
D11
D12
D13
D14
E 2/6
3

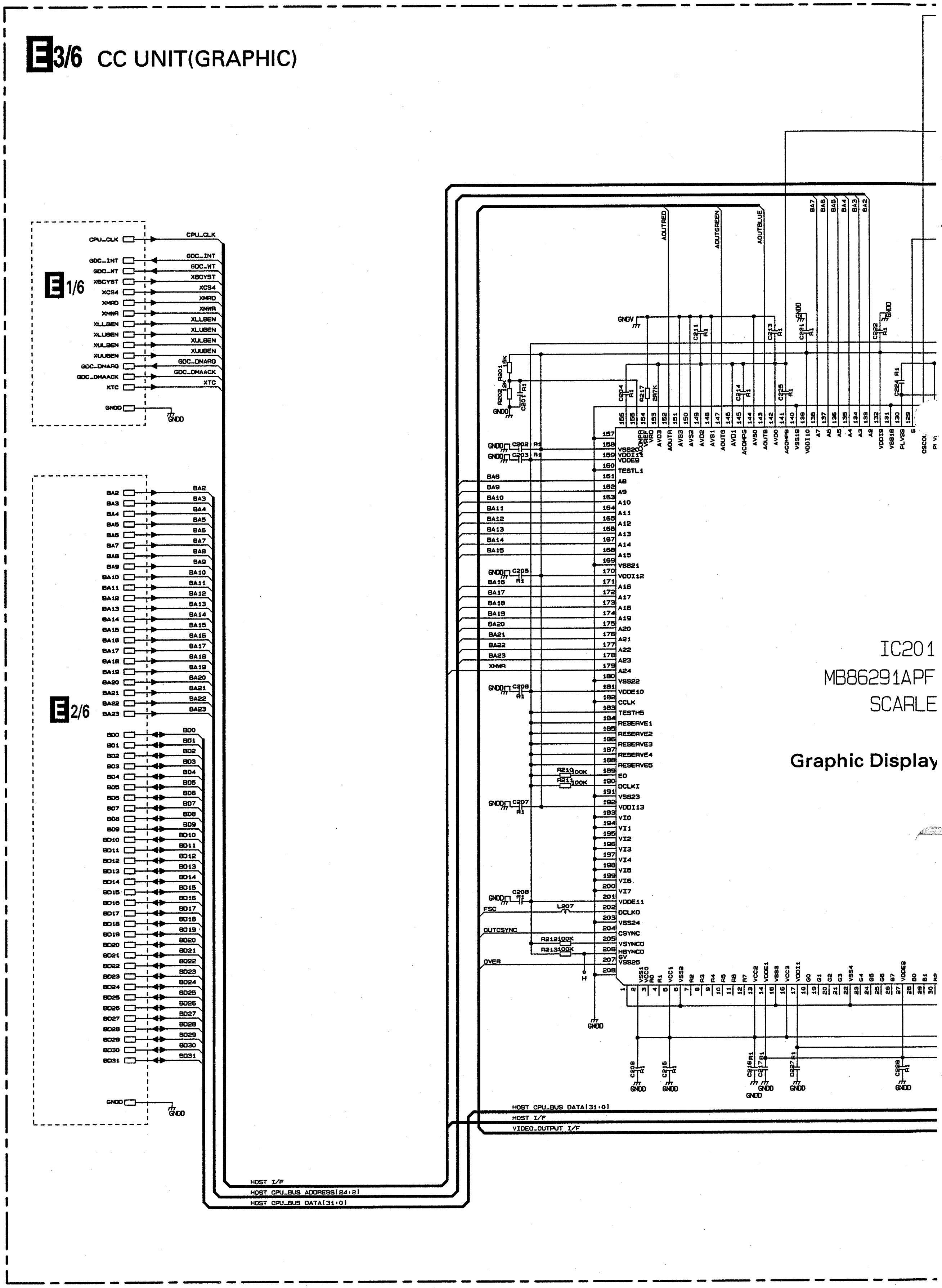
3.12 CC UNIT 2/6 (ROM, SRAM, BUS-BUFFER)

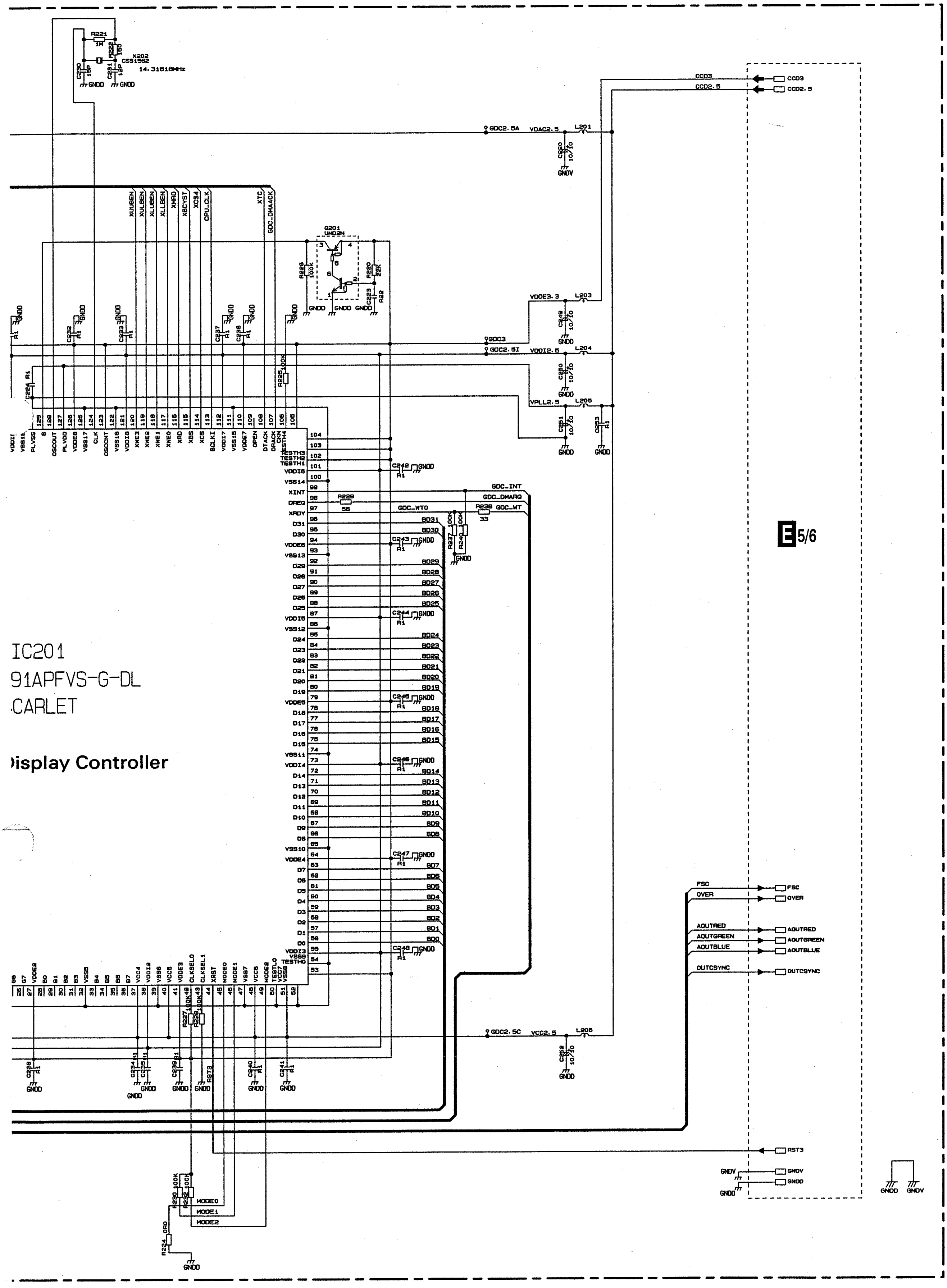

BUS-Buffer
Flas
※ XCS2:SRAM
XCS4:GDC
XCS5:PC-CARD
XCS6:DSP
XCS7:FLASH
E 1/6
A1–A23
D0–D31
XCS2
XCS4
XCS5
XCS6
XCS7
R/W
XCS_SRAM
XMWR
XMRD
XLLBEN
XLUBEN
SRAM_CSE
GNDD
C101
L101
R104
22
IC101
TC74LCX08FT
C102
L102
IC102
TC7SH04FU
NCO
INA
OUTY
C103
L103
IC103
TC74LCX245FT
C104
L104
IC104
TC74LCX245FT
C105
L105
IC105
TC74LCX245FT
C106
L106
IC106
TC74LCX245FT
DIR1
XOE
BD0–BD31
C107
L107
C125
IC107
TC74LCX541FT
C108
L108
IC108
TC74LCX541FT
C109
L109
C126
IC109
TC74LCX541FT
XG1
XG2
BA1–BA23
C124
100P
R101
47K
R102
47K
XMWR
RST3
PD6403B(
PD6401B(
PD6404
PD6402
A
B
C
D
1
2
3
4

E 2/6 CC UNIT(ROM,SRAM,BUS-BUFFER)

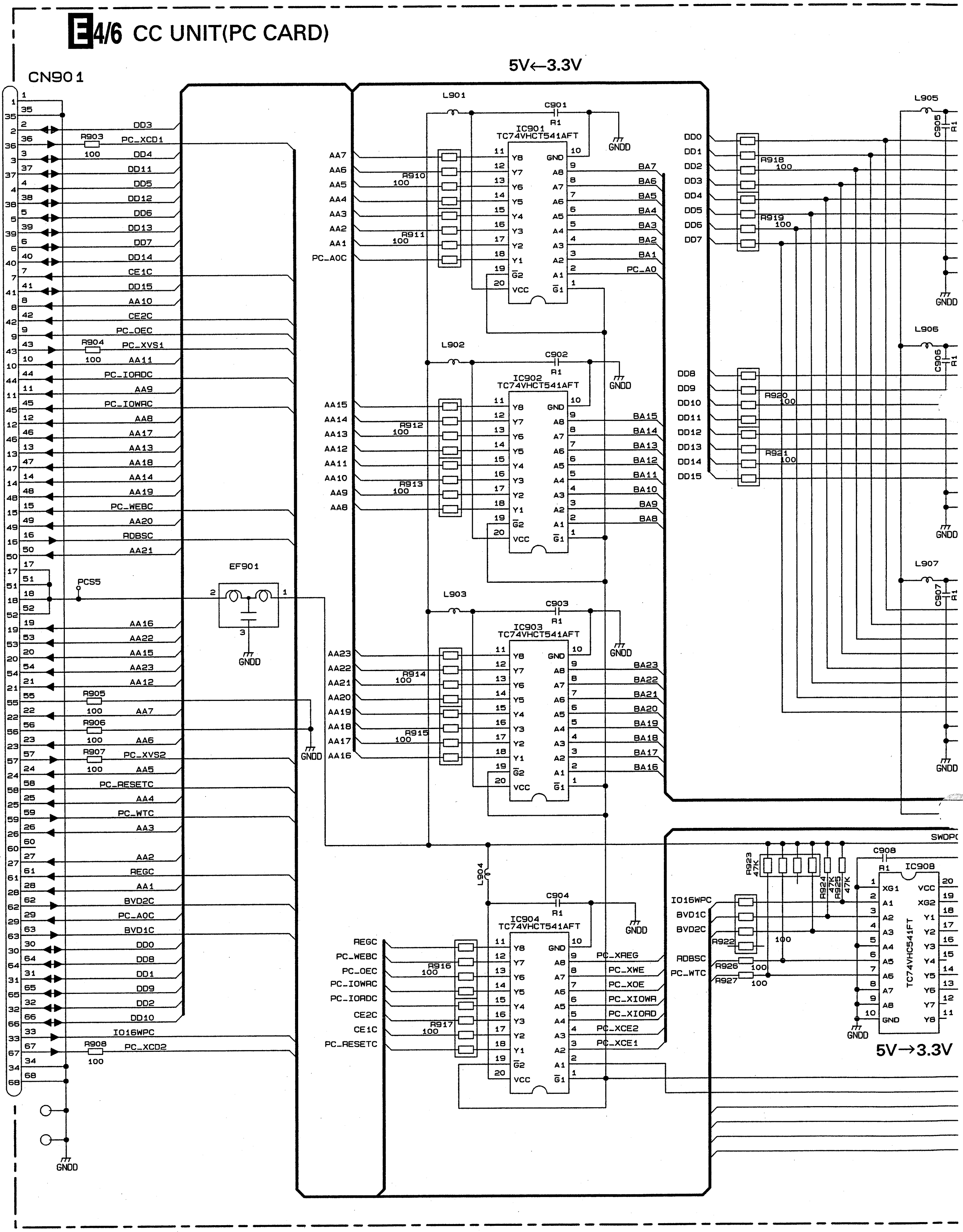

FlashROM
SRAM
IC110
PD6403B(UC MODEL)
PD6401B(EW MODEL)
IC111
PD6404B(UC MODEL)
PD6402B(EW MODEL)
IC113
M5M5V216ATP-70HI
SRAMBUP3
SRAM3
IC112
TC7SH00FU
IC114
TC7SH08FU
XCS_SRAM
RST3
SRAM_CSE
R103 47K
F3L
F3U
L110
L111
L112
L113
L114
C110 10/6R3
C111 R1
C113 10/6R3
C114 R1
C117 10/6R3
C118 R1
C122 R1
C123 R01
C112 R22
C115 R22
C119 R1
C116 R1
C120 R1
C121 R1
XMWR
XMRD
XCS7
XLUBEN
XLLBEN
GNDD
CCD3
BUP3
RST3
EW MODEL ONLY
R110 0R0
UC MODEL ONLY
R111 0R0
E 3/6
E 4/6
E 5/6
A
B
C
D

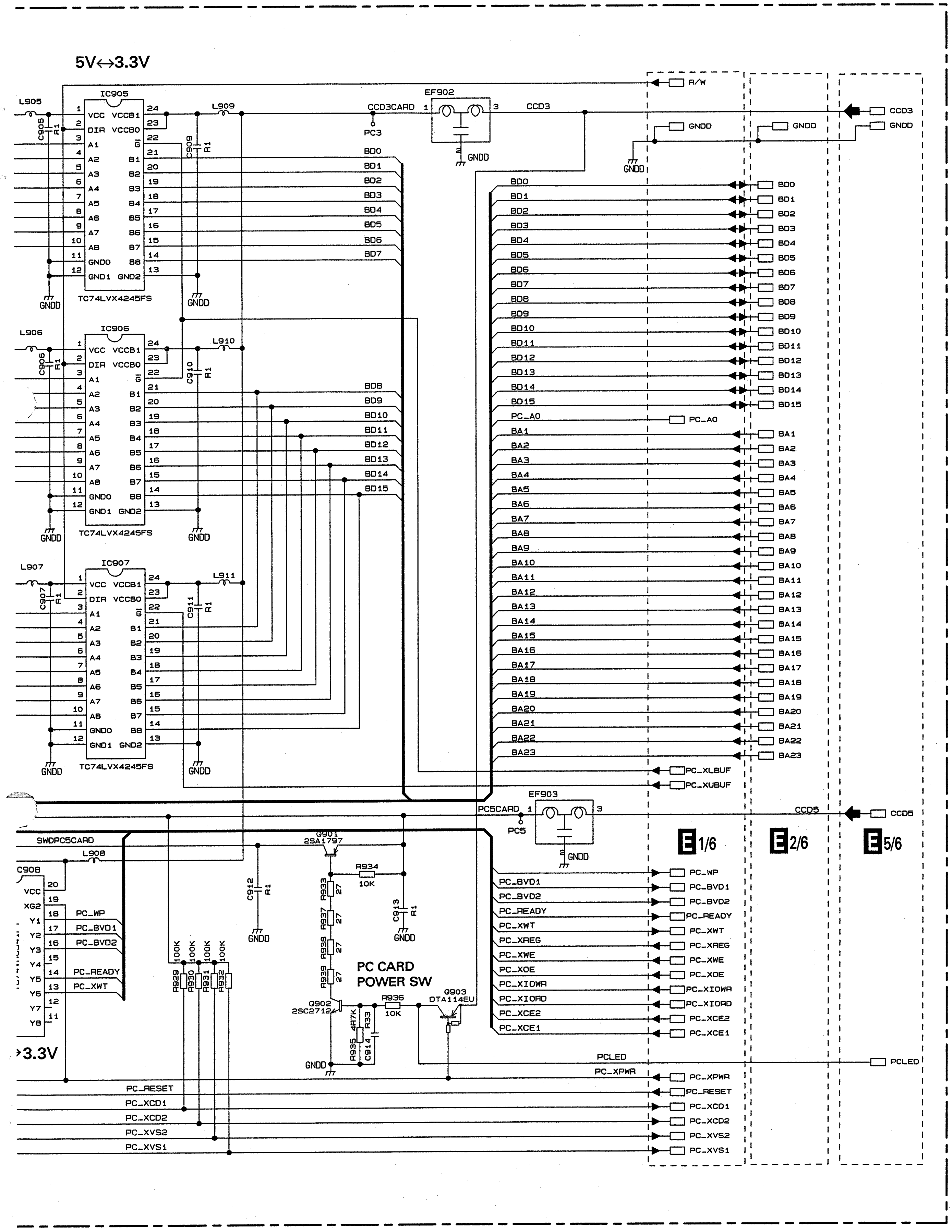
3.13 CC UNIT 3/6 (GRAPHIC)


E 3/6 CC UNIT(GRAPHIC)
A
B
C
D
E 1/6
CPU_CLK
GDC_INT
GDC_WT
XBCYST
XCS4
XMRD
XMWR
XLLBEN
XLUBEN
XULBEN
XUUBEN
GDC_DMARQ
GDC_DMAACK
XTC
GNDD
E 2/6
BA2
BA3
BA4
BA5
BA6
BA7
BA8
BA9
BA10
BA11
BA12
BA13
BA14
BA15
BA16
BA17
BA18
BA19
BA20
BA21
BA22
BA23
BD0
BD1
BD2
BD3
BD4
BD5
BD6
BD7
BD8
BD9
BD10
BD11
BD12
BD13
BD14
BD15
BD16
BD17
BD18
BD19
BD20
BD21
BD22
BD23
BD24
BD25
BD26
BD27
BD28
BD29
BD30
BD31
HOST I/F
HOST CPU_BUS ADDRESS[24:2]
HOST CPU_BUS DATA[31:0]
HOST CPU_BUS DATA[31:0]
HOST I/F
VIDEO_OUTPUT I/F
AOUTRED
AOUTGREEN
AOUTBLUE
GNDV
R201 15K
R202 2K
C201
C202
C203
C204
C205
C206
C207
C208
C209
C211
C213
C214
C215
C216
C217
C219
C221
C222
C224
C225
C227
C228
R217 2R7K
R210 100K
R211 100K
R212 100K
R213 100K
L207
FSC
OUTCSYNC
OVER
XMWR
IC201
MB86291APF
SCARLE
Graphic Display
157
158 VSS20
159 VDDI11
160 VDDE9
TESTL1
161 A8
162 A9
163 A10
164 A11
165 A12
166 A13
167 A14
168 A15
169 VSS21
170 VDDI12
171 A16
172 A17
173 A18
174 A19
175 A20
176 A21
177 A22
178 A23
179 A24
180 VSS22
181 VDDE10
182 CCLK
183 TESTH5
184 RESERVE1
185 RESERVE2
186 RESERVE3
187 RESERVE4
188 RESERVE5
189 E0
190 DCLKI
191 VSS23
192 VDDI13
193 VI0
194 VI1
195 VI2
196 VI3
197 VI4
198 VI5
199 VI6
200 VI7
201 VDDE11
202 DCLKO
203 VSS24
204 CSYNC
205 VSYNC0
206 HSYNC0
207 GV
208 VSS25
156 COMPR
155 VREF
154 VRO
153 AVD3
152 AOUTR
151 AVS3
150 AVD2
149 AVS2
148 AVS1
147 AOUTG
146 AVD1
145 ACOMPG
144 AVS0
143 AOUTB
142 AVD0
141 ACOMPB
140 VSS19
139 VDDI10
138 A7
137 A6
136 A5
135 A4
134 A3
133 A2
132 VDDI9
131 VSS18
130 PLVSS
129 S
OSCO
PLV
BA7
BA6
BA5
BA4
BA3
BA2
1
2 VSS1
3 VCC0
4 R0
5 R1
6 VCC1
7 VSS2
8 R2
9 R3
10 R4
11 R5
12 R6
13 R7
14 VCC2
15 VDDE1
16 VSS3
17 VCC3
18 VDDI1
19 G0
20 G1
21 G2
22 G3
23 VSS4
24 G4
25 G5
26 G6
27 G7
28 VDDE2
29 B0
30 B1
R1
H


IC201
91APFVS-G-DL
CARLET
Display Controller
R221 1M
R222 150
X202 CSS1562 14.31818MHz
C230 15P
C231 12P
GNDD
Q201 UMD2N
R226 100K
R220 22K
C223 R22
CCD3
CCD2.5
GDC2.5A
VDAC2.5
L201
C220 10/10
GNDV
VDDE3.3
L203
C249 10/10
GDC3
GDC2.5I
VDDI2.5
L204
C250 10/10
VPLL2.5
L205
C251 10/10
C253 R1
R225 100K
C224 R1
C232 R1
C233 R1
C237 R1
C238 R1
XUUBEN
XULBEN
XLUBEN
XLLBEN
XHRD
XBCYST
XCS4
CPU_CLK
XTC
GDC_DMAACK
C242 R1
GDC_INT
GDC_DMARQ
R229 56
GDC_WTO
R238 33
GDC_WT
R237 100K
R240 100K
C243 R1
C244 R1
C245 R1
C246 R1
C247 R1
C248 R1
BD31
BD30
BD29
BD28
BD27
BD26
BD25
BD24
BD23
BD22
BD21
BD20
BD19
BD18
BD17
BD16
BD15
BD14
BD13
BD12
BD11
BD10
BD9
BD8
BD7
BD6
BD5
BD4
BD3
BD2
BD1
BD0
E 5/6
FSC
OVER
AOUTRED
AOUTGREEN
AOUTBLUE
OUTCSYNC
GDC2.5C
VCC2.5
L206
C252 10/10
R227 100K
R228 100K
C228 R1
C234 R1
C235 R1
C239 R1
C240 R1
C241 R1
RST3
R230 100K
R232 100K
MODE0
MODE1
MODE2
R224 0R0
GNDV
GNDD

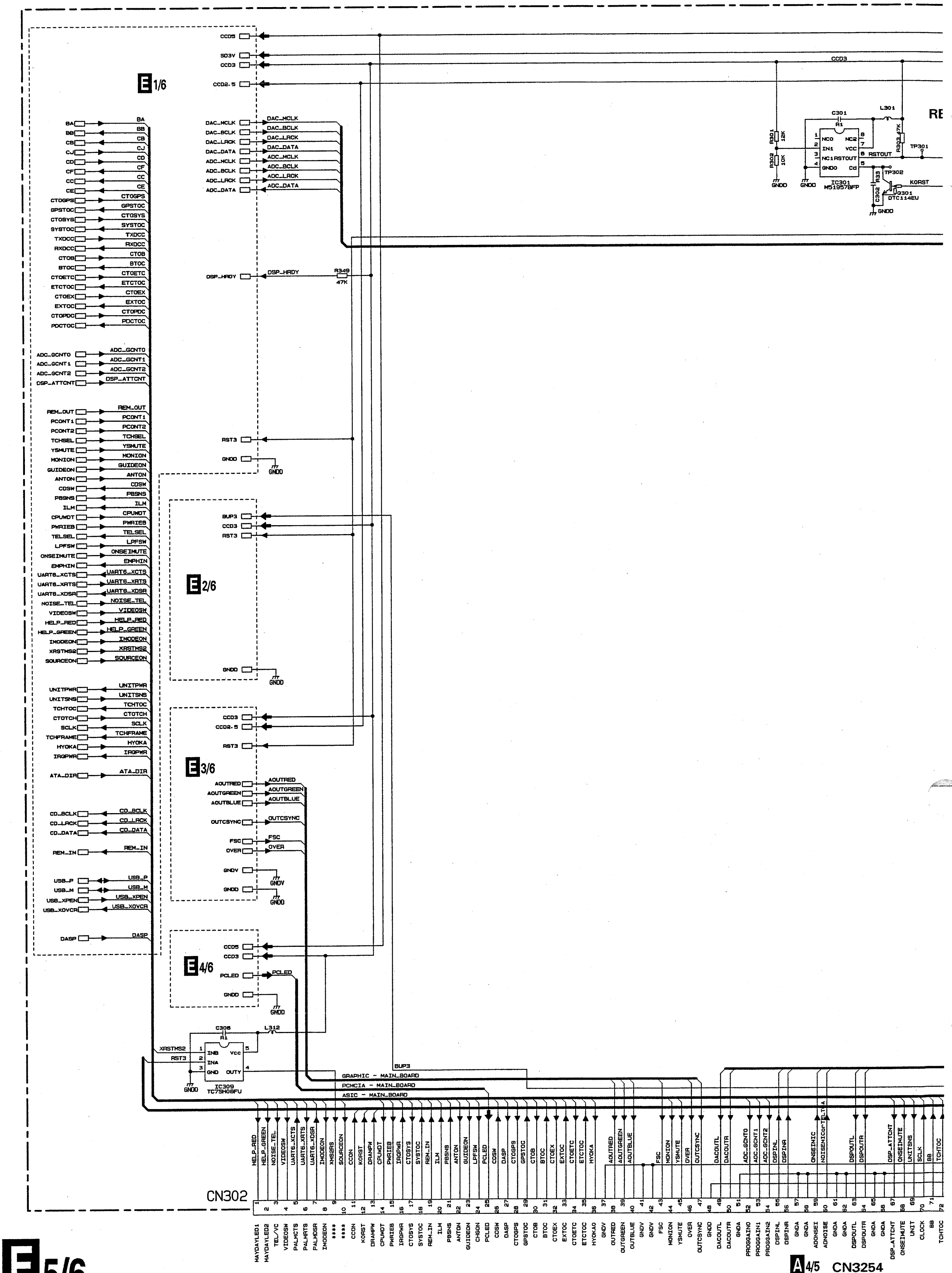
3.14 CC UNIT 4/6 (PC CARD)


E 4/6 CC UNIT(PC CARD)
5V←3.3V
CN901
PC CARD
L901
C901
IC901
TC74VHCT541AFT
L902
C902
IC902
TC74VHCT541AFT
L903
C903
IC903
TC74VHCT541AFT
L904
C904
IC904
TC74VHCT541AFT
EF901
PCS5
GNDD
R903 100
R904 100
R905 100
R906 100
R907 100
R908 100
R910 100
R911 100
R912 100
R913 100
R914 100
R915 100
R916 100
R917 100
R918 100
R919 100
R920 100
R921 100
R922 100
R923 47K
R924 47K
R925 47K
R926 100
R927 100
L905
C905
L906
C906
L907
C907
C908
IC908
TC74VHC541FT
SWDPC
5V→3.3V
DD0
DD1
DD2
DD3
DD4
DD5
DD6
DD7
DD8
DD9
DD10
DD11
DD12
DD13
DD14
DD15
PC_XCD1
PC_XCD2
CE1C
CE2C
PC_OEC
PC_XVS1
PC_XVS2
PC_IORDC
PC_IOWRC
PC_WEBC
RDBSC
PC_RESETC
PC_WTC
REGC
BVD1C
BVD2C
PC_A0C
IO16WPC
AA1
AA2
AA3
AA4
AA5
AA6
AA7
AA8
AA9
AA10
AA11
AA12
AA13
AA14
AA15
AA16
AA17
AA18
AA19
AA20
AA21
AA22
AA23
PC_A0
BA1
BA2
BA3
BA4
BA5
BA6
BA7
BA8
BA9
BA10
BA11
BA12
BA13
BA14
BA15
BA16
BA17
BA18
BA19
BA20
BA21
BA22
BA23
PC_XREG
PC_XWE
PC_XOE
PC_XIOWR
PC_XIORD
PC_XCE2
PC_XCE1
Y1
Y2
Y3
Y4
Y5
Y6
Y7
Y8
A1
A2
A3
A4
A5
A6
A7
A8
G1
G2
VCC
GND
XG1
XG2
R1
A
B
C
D


5V↔3.3V
L905
IC905
TC74LVX4245FS
VCC
DIR
VCCB1
VCCB0
A1
A2
A3
A4
A5
A6
A7
A8
B1
B2
B3
B4
B5
B6
B7
B8
GND0
GND1
GND2
C905
C909
R1
L909
GNDD
L906
IC906
C906
C910
L910
L907
IC907
C907
C911
L911
CCD3CARD
PC3
EF902
CCD3
R/W
CCD5
PC5CARD
PC5
EF903
BD0
BD1
BD2
BD3
BD4
BD5
BD6
BD7
BD8
BD9
BD10
BD11
BD12
BD13
BD14
BD15
PC_A0
BA1
BA2
BA3
BA4
BA5
BA6
BA7
BA8
BA9
BA10
BA11
BA12
BA13
BA14
BA15
BA16
BA17
BA18
BA19
BA20
BA21
BA22
BA23
PC_XLBUF
PC_XUBUF
SWDPC5CARD
L908
C908
VCC
XG2
Y1
Y2
Y3
Y4
Y5
Y6
Y7
Y8
PC_WP
PC_BVD1
PC_BVD2
PC_READY
PC_XWT
PC_XREG
PC_XWE
PC_XOE
PC_XIOWR
PC_XIORD
PC_XCE2
PC_XCE1
Q901
2SA1797
R934
10K
R933
R937
R938
R939
27
C912
C913
R929
R930
R931
R932
100K
PC CARD
POWER SW
Q902
2SC2712
R936
Q903
DTA114EU
R935
4R7K
R33
C914
3.3V
PCLED
PC_XPWR
PC_RESET
PC_XCD1
PC_XCD2
PC_XVS2
PC_XVS1
E 1/6
E 2/6
E 5/6

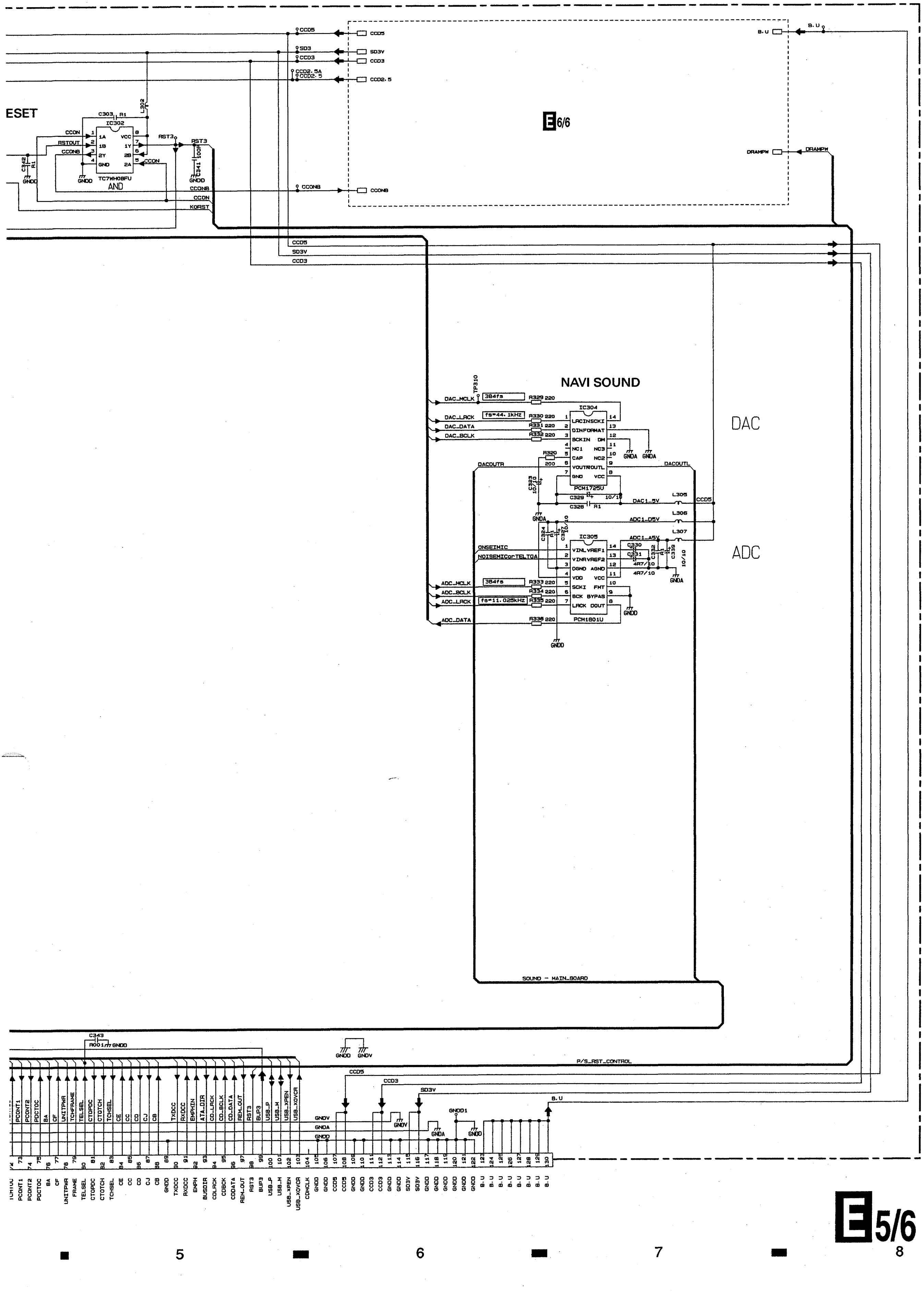
3.15 CC UNIT 5/6 (DSP, I/F CONNECTOR)(GUIDE PAGE)

E-a 5/6


A
B
C
D
E 1/6
BA
BB
CB
CJ
CD
CF
CC
CE
CTOGPS
GPSTOC
CTOSYS
SYSTOC
TXDCC
RXDCC
CTOB
BTOC
CTOETC
ETCTOC
CTOEX
EXTOC
CTOPDC
PDCTOC
ADC_GCNT0
ADC_GCNT1
ADC_GCNT2
DSP_ATTCNT
REM_OUT
PCONT1
PCONT2
TCHSEL
YSMUTE
MONION
GUIDEON
ANTON
CDSW
PBSNS
ILM
CPUWDT
PWRIEB
TELSEL
LPFSW
ONSEIMUTE
EMPHIN
UART6_XCTS
UART6_XRTS
UART6_XDSR
NOISE_TEL
VIDEOSW
HELP_RED
HELP_GREEN
IMODEON
XRSTMS2
SOURCEON
UNITPWR
UNITSNS
TCHTOC
CTOTCH
SCLK
TCHFRAME
HYOKA
IRQPWR
ATA_DIR
CD_BCLK
CD_LRCK
CD_DATA
REM_IN
USB_P
USB_M
USB_XPEN
USB_XOVCR
DASP
CCD5
SD3V
CCD3
CCD2.5
DAC_MCLK
DAC_BCLK
DAC_LRCK
DAC_DATA
ADC_MCLK
ADC_BCLK
ADC_LRCK
ADC_DATA
DSP_HRDY
R349
47K
RST3
GNDD
E 2/6
BUP3
CCD3
RST3
GNDD
E 3/6
CCD3
CCD2.5
RST3
AOUTRED
AOUTGREEN
AOUTBLUE
OUTCSYNC
FSC
OVER
GNDV
GNDD
E 4/6
CCD5
CCD3
PCLED
GNDD
C306
R1
L312
XRSTMS2
RST3
INB
INA
GND
VCC
OUTY
IC309
TC7SH08FU
BUP3
GRAPHIC - MAIN_BOARD
PCMCIA - MAIN_BOARD
ASIC - MAIN_BOARD
CCD3
C301
R1
L301
R301
12K
R302
10K
R303 47K
NC0
IN1
NC1
GND0
NC2
VCC
RSTOUT
Cd
RSTOUT
TP301
TP302
IC301
M51957BFP
R33
C302
KORST
Q301
DTC114EU
GNDD
RE
HELP_RED
HELP_GREEN
NOISE_TEL
VIDEOSW
UART6_XCTS
UART6_XRTS
UART6_XDSR
IMODEON
XMS2RS
SOURCEON
CCON
KORST
DRAMPW
CPUWDT
PWRIEB
IRQPWR
CTOSYS
SYSTOC
REM_IN
ILM
PBSNS
ANTON
GUIDEON
LPFSW
PCLED
CDSW
DASP
CTOGPS
GPSTOC
CTOB
BTOC
CTOEX
EXTOC
CTOETC
ETCTOC
HYOKA
AOUTRED
AOUTGREEN
AOUTBLUE
FSC
MONION
YSMUTE
OVER
OUTCSYNC
DACOUTL
DACOUTR
ADC_GCNT0
ADC_GCNT1
ADC_GCNT2
DSPINL
DSPINR
ONSEIMIC
NOISEMICorTELTA
DSPOUTL
DSPOUTR
DSP_ATTCNT
ONSEIMUTE
UNITSNS
SCLK
BB
TCHTOC
CN302
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72
MAYDAYLED1
MAYDAYLED2
TEL/VC
VIDEOSW
PALMCTS
PALMRTS
PALMDSR
IMODEON
****
****
CCON
KORST
DRAMPW
CPUWDT
PWRIEB
IRQPWR
CTOSYS
SYSTOC
REM_IN
ILM
PBSNS
ANTON
GUIDEON
CHGON
PCLED
CDSW
DASP
CTOGPS
GPSTOC
CTOB
BTOC
CTOEX
EXTOC
CTOETC
ETCTOC
HYOKA0
GNDV
OUTRED
OUTGREEN
OUTBLUE
GNDV
GNDV
FSC
MONION
YSMUTE
OVER
OUTCSYNC
GNDD
DACOUTL
DACOUTR
GNDA
PROGGAIN0
PROGGAIN1
PROGGAIN2
DSPINL
DSPINR
GNDA
GNDA
ADONSEI
ADNOISE
GNDA
GNDA
DSPOUTL
DSPOUTR
GNDA
GNDA
DSP_ATTCNT
ONSEIMUTE
UNIT
CLOCK
BB
TCHTOC
A 4/5 CN3254

E-b 5/6

E 5/6 CC UNIT(DSP,I/F CONNECTOR)


CCD5
SD3
CCD3
CCD2.5A
CCD2.5
SD3V
B.U
E 6/6
DRAMPW
ESET
C303
R1
IC302
L302
CCON
RSTOUT
CCONB
1A
1B
2Y
GND
VCC
1Y
2B
2A
RST3
100P
C341
C342
GNDD
TC7WH08FU
AND
CCONB
CCON
KORST
NAVI SOUND
TP310
DAC_MCLK
384fs
R329 220
DAC_LRCK
fs=44.1kHz
R330 220
DAC_DATA
R331 220
DAC_BCLK
R332 220
IC304
LRCIN
SCKI
DIN
FORMAT
BCKIN
DM
NC1
NC3
CAP
NC2
VOUTR
VOUTL
GND
VCC
R320
200
PCM1725U
C323
C329
C328
10/16
DAC1_5V
L305
DACOUTR
DACOUTL
GNDA
DAC
ADC
L306
ADC1_D5V
L307
ADC1_A5V
IC305
ONSEIMIC
NOISEMICorTELTOA
VINL
VREF1
VINR
VREF2
DGND
AGND
VDD
VCC
SCKI
FMT
BCK
BYPAS
LRCK
DOUT
PCM1801U
C324
C327
C330
C331
C332
C339
4R7/10
10/10
ADC_MCLK
384fs
R333 220
ADC_BCLK
R334 220
ADC_LRCK
fs=11.025kHz
R335 220
ADC_DATA
R336 220
GNDD
SOUND - MAIN_BOARD
C343
R001
GNDD
GNDV
P/S_RST_CONTROL
CCD5
CCD3
SD3V
B.U
GNDV
GNDA
GNDD
GNDD1
PCONT1
PCONT2
PDCTOC
BA
CF
UNITPWR
TCHFRAME
TELSEL
CTOPDC
CTOTCH
TCHSEL
CE
CC
CD
CJ
CB
TXDCC
RXDCC
EMPHIN
ATA_DIR
CD_LRCK
CD_BCLK
CD_DATA
REM_OUT
RST3
BUP3
USB_P
USB_M
USB_XPEN
USB_XOVCR
72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130
TCHTOC
PCONT1
PCONT2
PDCTOC
BA
CF
UNITPWR
FRAME
TELSEL
CTOPDC
CTOTCH
TCHSEL
CE
CC
CD
CJ
CB
GNDD
TXDCC
RXDCC
EMPH
BUSDIR
CDLRCK
CDBCK
CDDATA
REM_OUT
RST3
BUP3
USB_P
USB_M
USB_XPEN
USB_XOVCR
CDMCLK
GNDD
GNDD
CCD5
GNDD
GNDD
CCD3
GNDD
GNDD
SD3V
SD3V
GNDD
GNDD
GNDD
GNDD
GNDD
GNDD
B.U
B.U
B.U
B.U
B.U
B.U
B.U
B.U

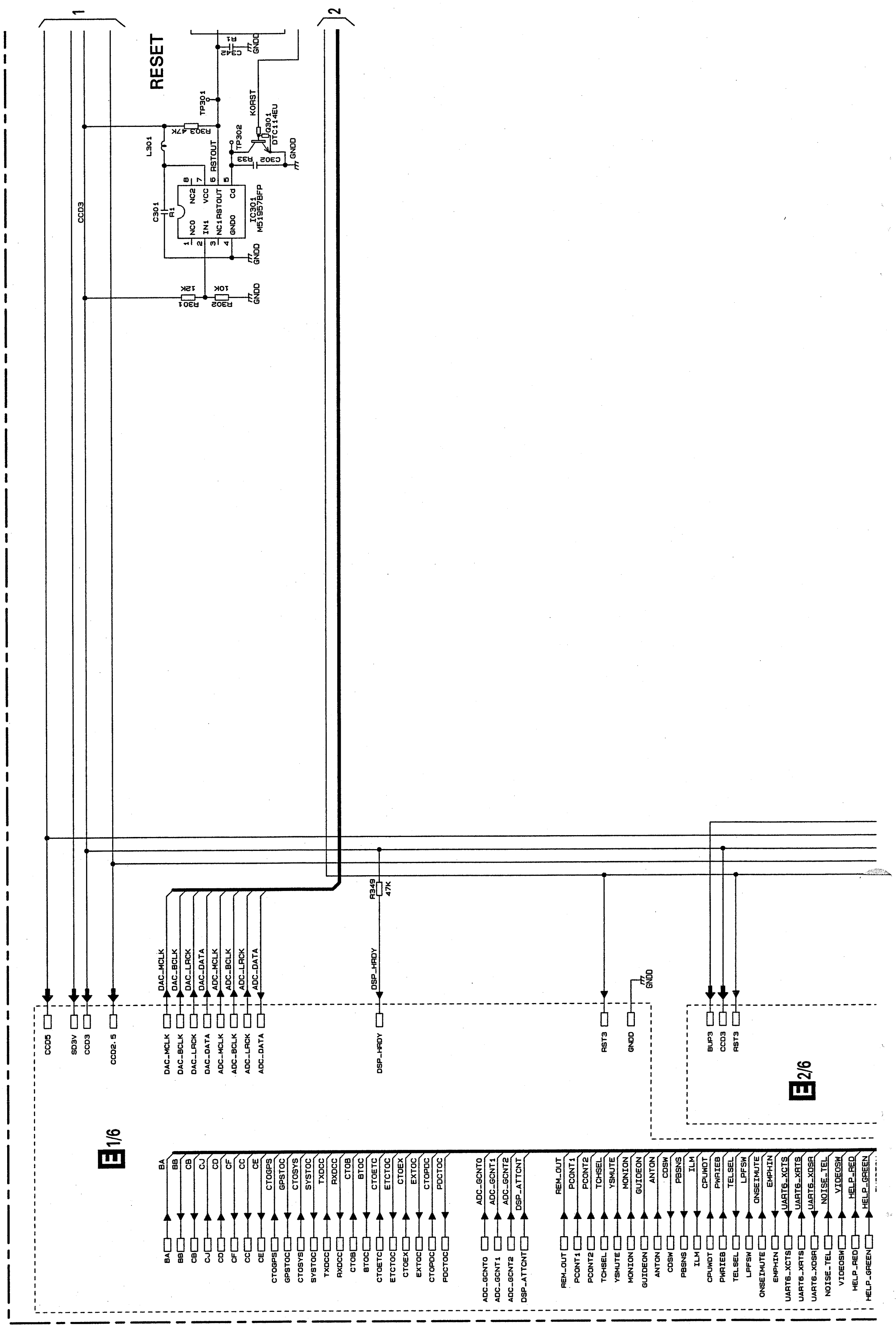
E-b
E-a

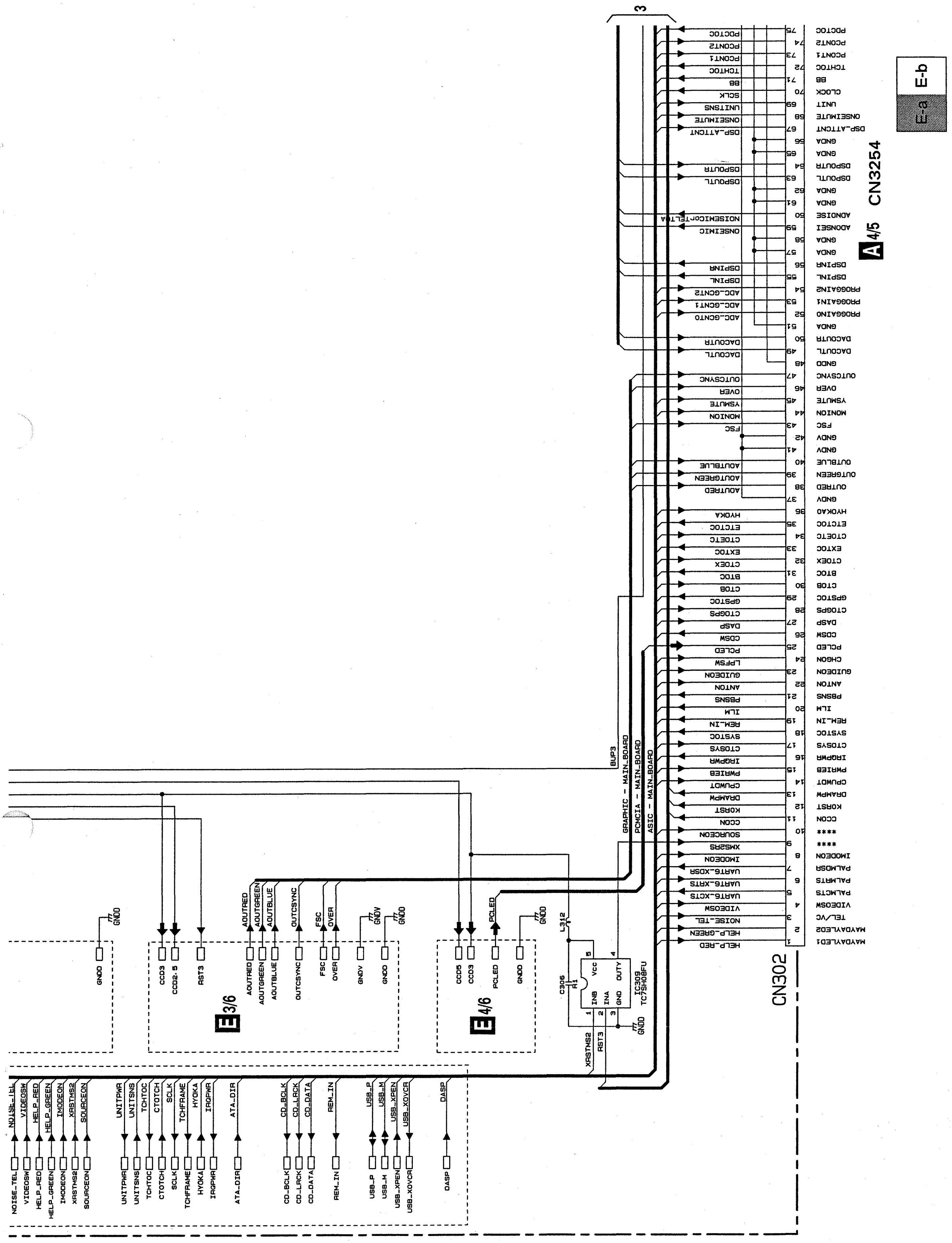
A

B

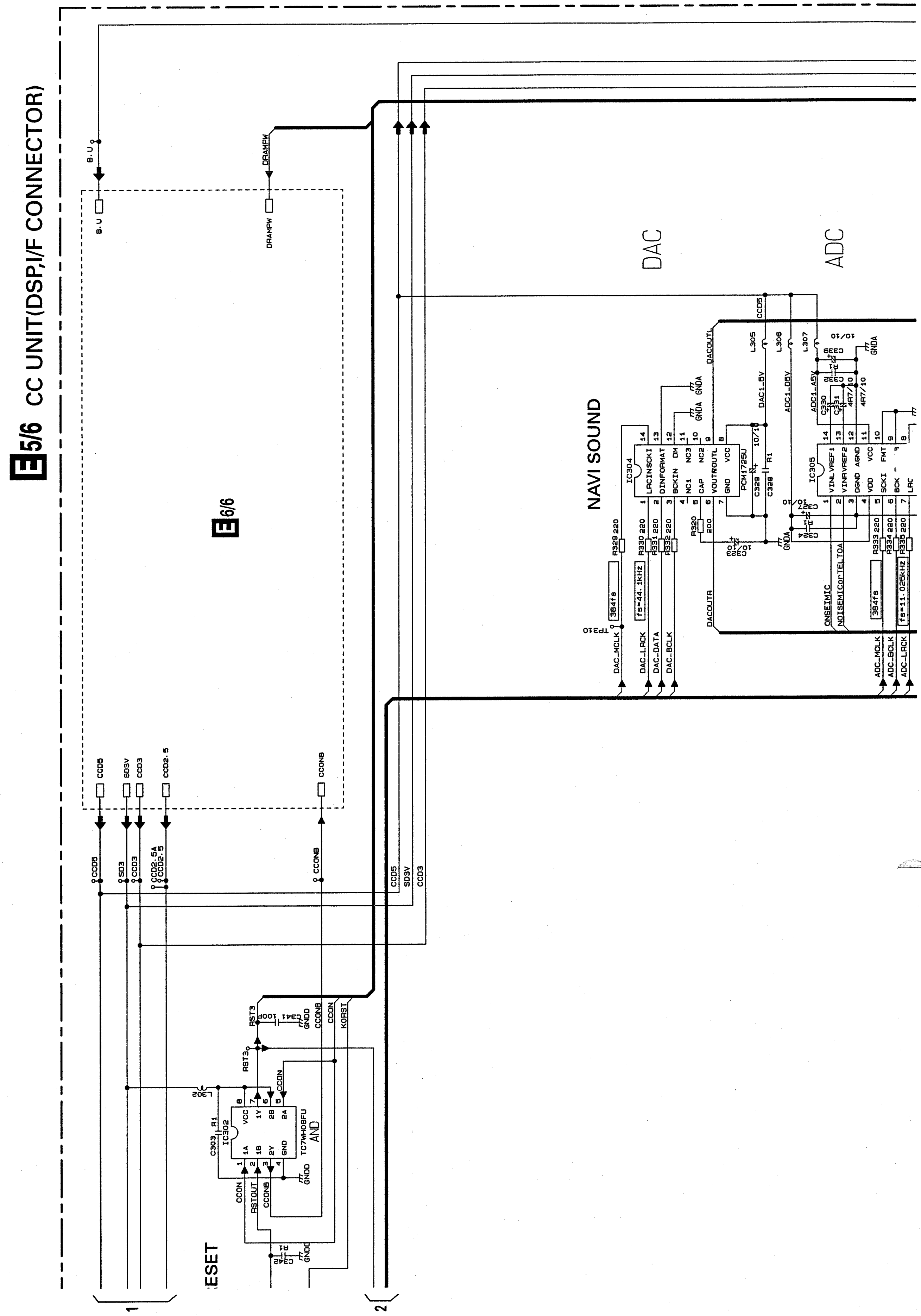
C

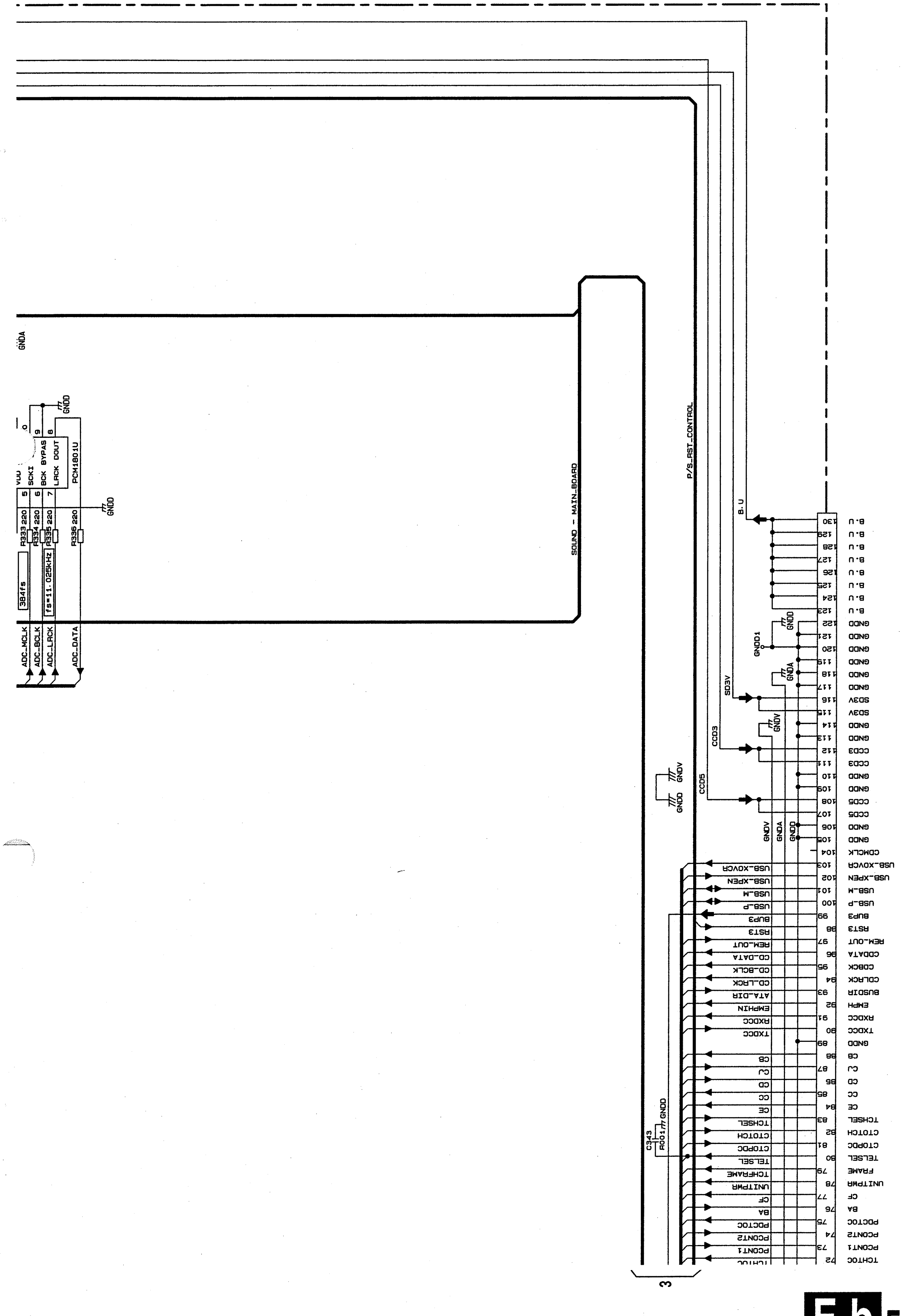
D


1
2
RESET
C341
GNDD
TP301
KORST
Q301
DTC114EU
TP302
R303 47K
L301
RSTOUT
R33
C302
C301
R1
IC301
M51957BFP
1 NCO
2 IN1
3 NC1RSTOUT
4 GNDO
8 NC2
7 VCC
6 RSTOUT
5 Cd
CCD3
R301 12K
R302 10K
R349 47K
DAC_MCLK
DAC_BCLK
DAC_LRCK
DAC_DATA
ADC_MCLK
ADC_BCLK
ADC_LRCK
ADC_DATA
DSP_HRDY
CCD5
SD3V
CCD3
CCD2.5
RST3
GNDD
BUP3
CCD3
RST3
E 2/6
E 1/6
BA
BB
CB
CJ
CD
CF
CC
CE
CTOGPS
GPSTOC
CTOSYS
SYSTOC
TXDCC
RXDCC
CTOB
BTOC
CTOETC
ETCTOC
CTOEX
EXTOC
CTOPDC
PDCTOC
ADC_GCNT0
ADC_GCNT1
ADC_GCNT2
DSP_ATTCNT
REM_OUT
PCONT1
PCONT2
TCHSEL
YSMUTE
MONION
GUIDEON
ANTON
CDSW
PBSNS
ILM
CPUWDT
PWRIEB
TELSEL
LPFSW
ONSEIMUTE
EMPHIN
UART6_XCTS
UART6_XRTS
UART6_XDSR
NOISE_TEL
VIDEOSW
HELP_RED
HELP_GREEN

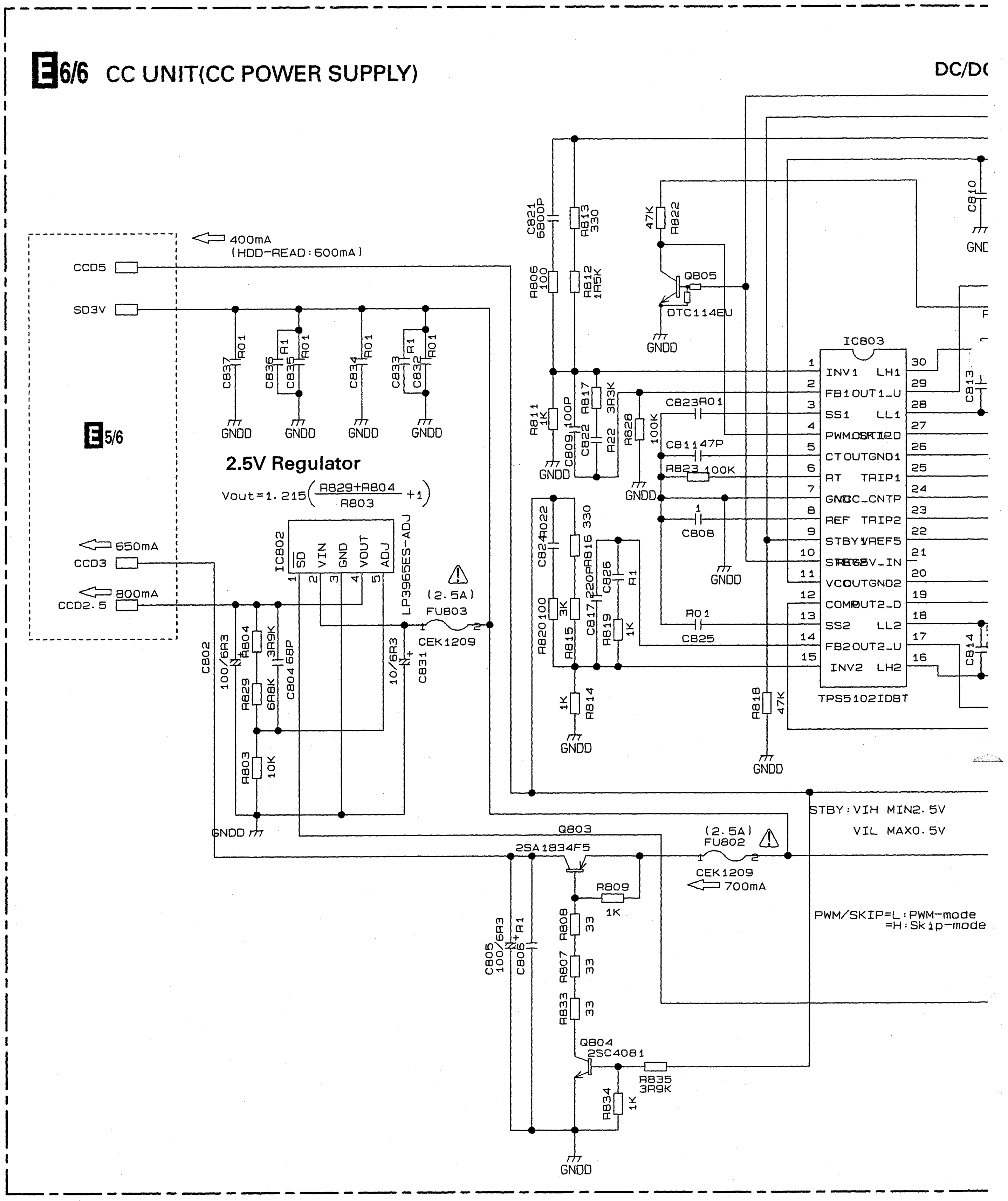


E-a
E-b
CN3254
A 4/5
CN302
3
PDCTOC
PCONT2
PCONT1
TCHTOC
BB
CLOCK
UNIT
ONSEIMUTE
DSP-ATTCNT
GNDA
DSPOUTR
DSPOUTL
ADNOISE
ADONSEI
DSPINR
DSPINL
PROGGAIN2
PROGGAIN1
PROGGAIN0
DACOUTR
DACOUTL
GNDD
OUTCSYNC
OVER
YSMUTE
MONION
FSC
GNDV
OUTBLUE
OUTGREEN
OUTRED
HYOKAO
ETCTOC
CTOETC
EXTOC
CTOEX
BTOC
CTOB
GPSTOC
CTOGPS
DASP
CDSW
PCLED
CHGON
GUIDEON
ANTON
PBSNS
ILM
REM-IN
SYSTOC
CTOSYS
IRQPWR
PWRIEB
CPUMDT
DRAMPW
KORST
CCON
****
IMODEON
PALMDSR
PALMRTS
PALMCTS
VIDEOSW
TEL/VC
MAYDAYLED2
MAYDAYLED1
SCLK
UNITSNS
NOISEMICorTELTA
ONSEIMIC
ADC-GCNT2
ADC-GCNT1
ADC-GCNT0
AOUTBLUE
AOUTGREEN
AOUTRED
HYOKA
LPFSW
SOURCEON
XMS2RS
UART6-XDSR
UART6-XRTS
UART6-XCTS
NOISE-TEL
HELP-GREEN
HELP-RED
BUP3
GRAPHIC - MAIN_BOARD
PCMCIA - MAIN_BOARD
ASIC - MAIN_BOARD
L312
C306
R1
IC309
TC7SH08FU
INB
INA
GND
Vcc
OUTY
XRSTMS2
RST3
GNDD
CCD3
CCD2.5
AOUTRED
AOUTGREEN
AOUTBLUE
OUTCSYNC
FSC
OVER
GNDV
E 3/6
CCD5
PCLED
E 4/6
NOISE_TEL
VIDEOSW
HELP_RED
HELP_GREEN
IMODEON
XRSTMS2
SOURCEON
UNITPWR
UNITSNS
TCHTOC
CTOTCH
SCLK
TCHFRAME
HYOKA
IRQPWR
ATA_DIR
CD_BCLK
CD_LRCK
CD_DATA
REM_IN
USB_P
USB_M
USB_XPEN
USB_XOVCR
DASP
A
B
C
D

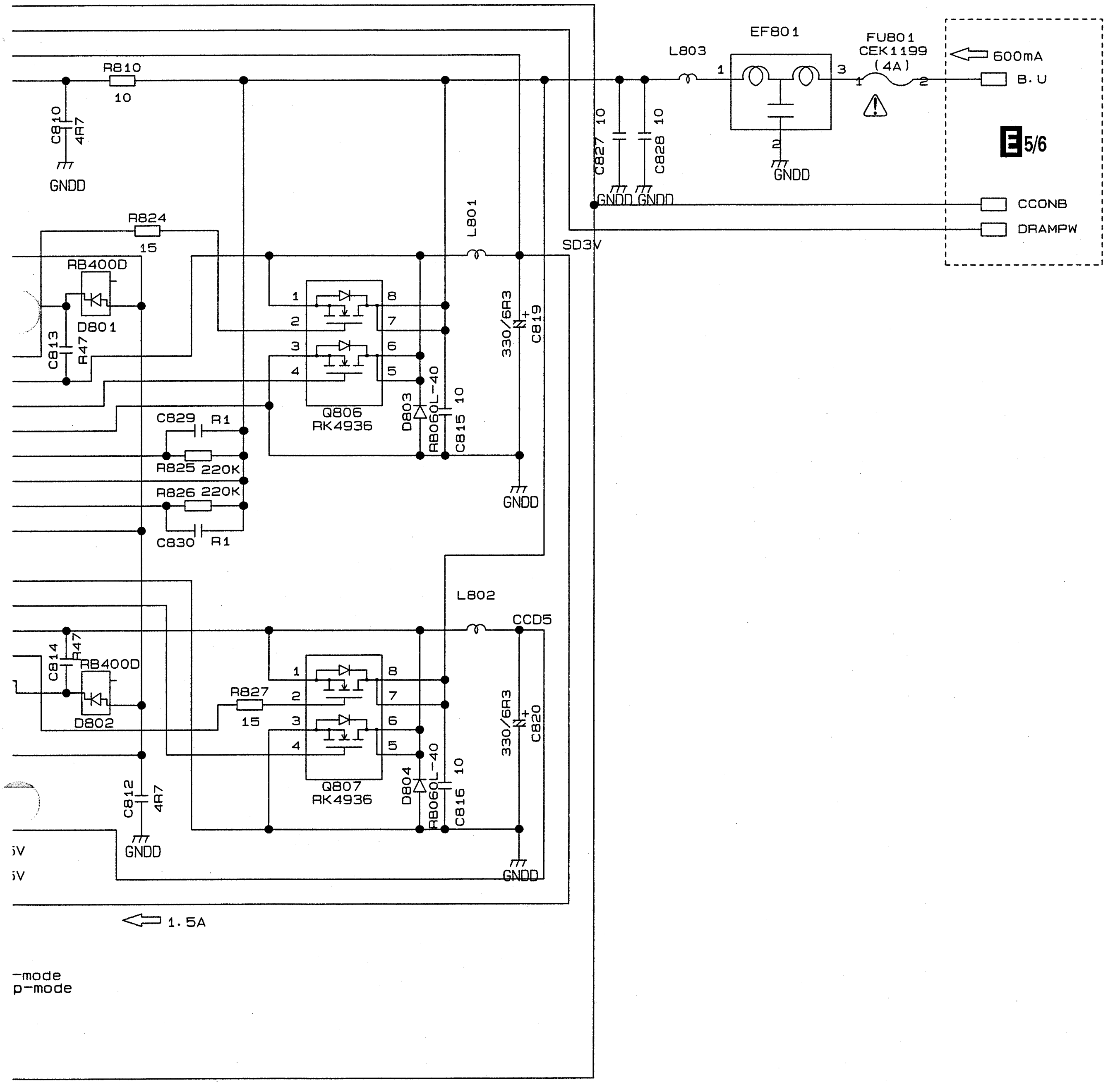

E 5/6 CC UNIT(DSP,I/F CONNECTOR)
E 6/6
B.U
DRAMPW
CCD5
SD3V
CCD3
CCD2.5
CCONB
SD3
CCD2.5A
DAC
ADC
NAVI SOUND
IC304
LRCINSCKI
DINFORMAT
BCKIN
DM
NC1
NC3
CAP
NC2
VOUTROUTL
GND
VCC
PCM1725U
IC305
VINL VREF1
VINRVREF2
DGND
AGND
VDD
SCKI
FMT
BCK
LRC
DACOUTL
DACOUTR
L305
L306
L307
DAC1_5V
ADC1_D5V
ADC1_A5V
C329
C328
R1
10/10
C339
C338
C330
C331
4R7/10
GNDA
C327
C334
C323
R320 200
R329 220
R330 220
R331 220
R332 220
R333 220
R334 220
R335 220
TP310
384fs
fs=44.1kHz
fs=11.025kHz
DAC_MCLK
DAC_LRCK
DAC_DATA
DAC_BCLK
ONSEIMIC
NOISEMICorTELTOA
ADC_MCLK
ADC_BCLK
ADC_LRCK
RST3
C341 100P
GNDD
CCON
KORST
L302
C303
IC302
TC7WH08FU
AND
VCC
1Y
2B
2A
1A
1B
2Y
GND
RSTOUT
C342
ESET
1
2


GNDA
GNDD
VDD
SCKI
BCK
BYPAS
LRCK
DOUT
PCM1801U
5
6
7
8
9
R333 220
R334 220
R335 220
R336 220
384fs
fs=11.025kHz
ADC_MCLK
ADC_BCLK
ADC_LRCK
ADC_DATA
SOUND - MAIN_BOARD
P/S_RST_CONTROL
B.U
GNDD1
GNDA
GNDV
SD3V
CCD3
CCD5
USB-XOVCR
USB-XPEN
USB-M
USB-P
BUP3
RST3
REM-OUT
CD-DATA
CD-BCLK
CD-LRCK
ATA-DIR
EMPHIN
RXDCC
TXDCC
CB
CJ
CD
CC
CE
TCHSEL
CTOTCH
CTOPDC
TELSEL
TCHFRAME
UNITPWR
CF
BA
PDCTOC
PCONT2
PCONT1
TCHTOC
C343
R001
3
130 B.U
129 B.U
128 B.U
127 B.U
126 B.U
125 B.U
124 B.U
123 B.U
122 GNDD
121 GNDD
120 GNDD
119 GNDD
118 GNDD
117 GNDD
116 SD3V
115 SD3V
114 GNDD
113 GNDD
112 CCD3
111 CCD3
110 GNDD
109 GNDD
108 CCD5
107 CCD5
106 GNDD
105 GNDD
104 CDMCLK
103 USB-XOVCR
102 USB-XPEN
101 USB-M
100 USB-P
99 BUP3
98 RST3
97 REM-OUT
96 CDDATA
95 CDBCK
94 CDLRCK
93 BUSDIR
92 EMPH
91 RXDCC
90 TXDCC
89 GNDD
88 CB
87 CJ
86 CD
85 CC
84 CE
83 TCHSEL
82 CTOTCH
81 CTOPDC
80 TELSEL
79 FRAME
78 UNITPWR
77 CF
76 BA
75 PDCTOC
74 PCONT2
73 PCONT1
72 TCHTOC

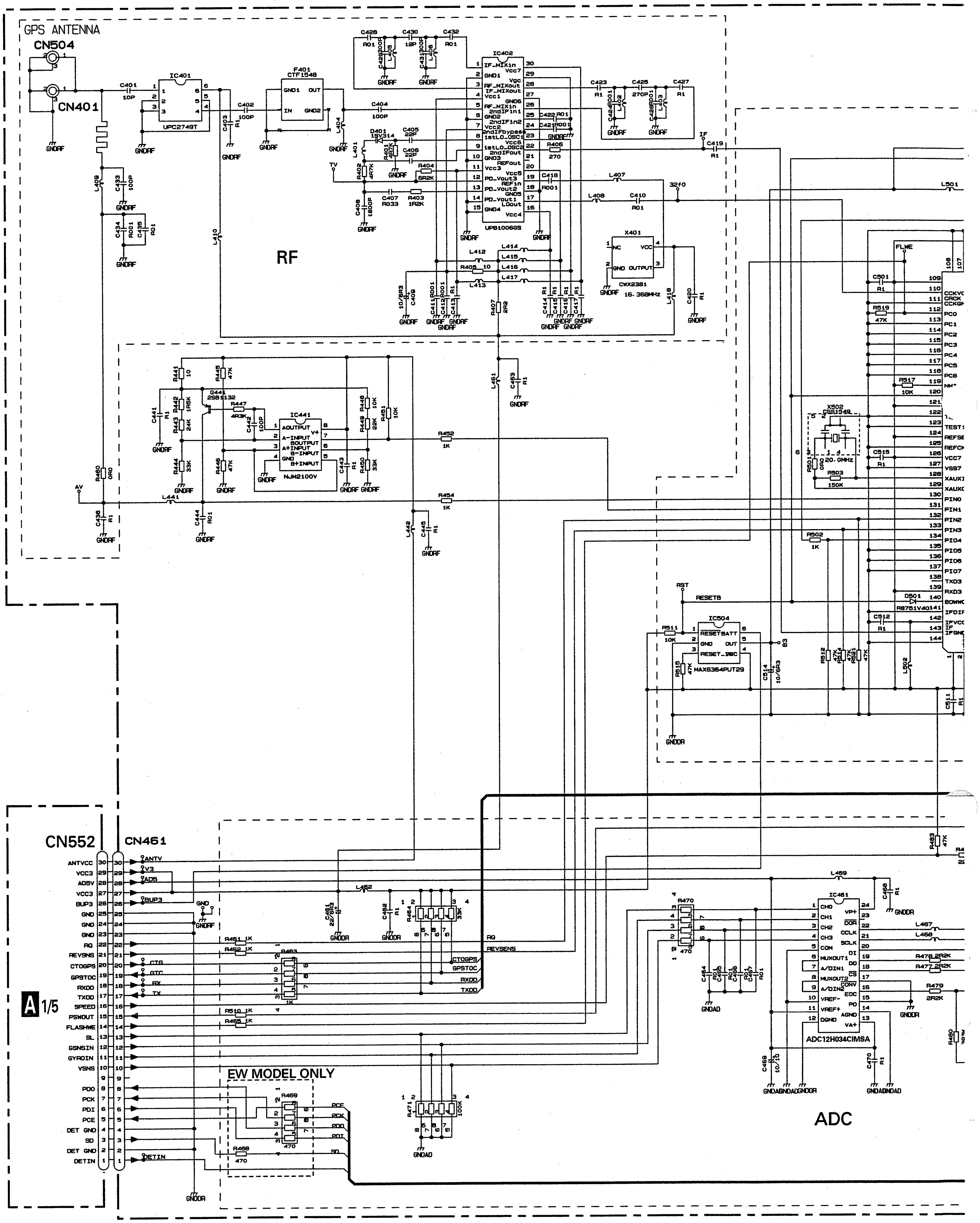
3.16 CC UNIT 6/6 (CC POWER SUPPLY)


E 6/6 CC UNIT(CC POWER SUPPLY)
DC/D
E 5/6
CCD5
SD3V
CCD3
CCD2.5
400mA
(HDD-READ:600mA)
650mA
800mA
C837 R01
C836 R1
C835 R01
C834 R01
C833 R1
C832 R01
GNDD
2.5V Regulator
Vout=1.215(R829+R804 / R803 +1)
IC802
LP3965ES-ADJ
1 SD
2 VIN
3 GND
4 VOUT
5 ADJ
C802 100/6R3
R804 3R9K
C804 68P
R829 6R8K
R803 10K
C831 10/6R3
(2.5A)
FU803
CEK1209
C821 6800P
R813 330
R806 100
R812 1R5K
R822 47K
Q805
DTC114EU
R811 1K
C809 100P
C822
R817 3R3K
R22
R828 100K
C823 R01
C811 47P
R823 100K
C808 1
C824 R022
R816 330
C826
R1
R820 100
R815 3K
C817 220P
R819 1K
R01
C825
R814 1K
R818 47K
IC803
TPS5102IDBT
1 INV1
2 FB1
3 SS1
4 PWM/SKIP
5 CT
6 RT
7 GND
8 REF
9 STBY1
10 STBY2
11 VCC
12 COMP
13 SS2
14 FB2
15 INV2
30 LH1
29 OUT1_U
28 LL1
27 OUT1_D
26 OUTGND1
25 TRIP1
24 VCC_CNTP
23 TRIP2
22 VREF5
21 REG5V_IN
20 OUTGND2
19 OUT2_D
18 LL2
17 OUT2_U
16 LH2
C810
C813
C814
GND
STBY:VIH MIN2.5V
VIL MAX0.5V
PWM/SKIP=L:PWM-mode
=H:Skip-mode
Q803
2SA1834F5
(2.5A)
FU802
CEK1209
700mA
R809 1K
R808 33
R807 33
R833 33
C805 100/6R3
C806 R1
Q804
2SC4081
R835 3R9K
R834 1K

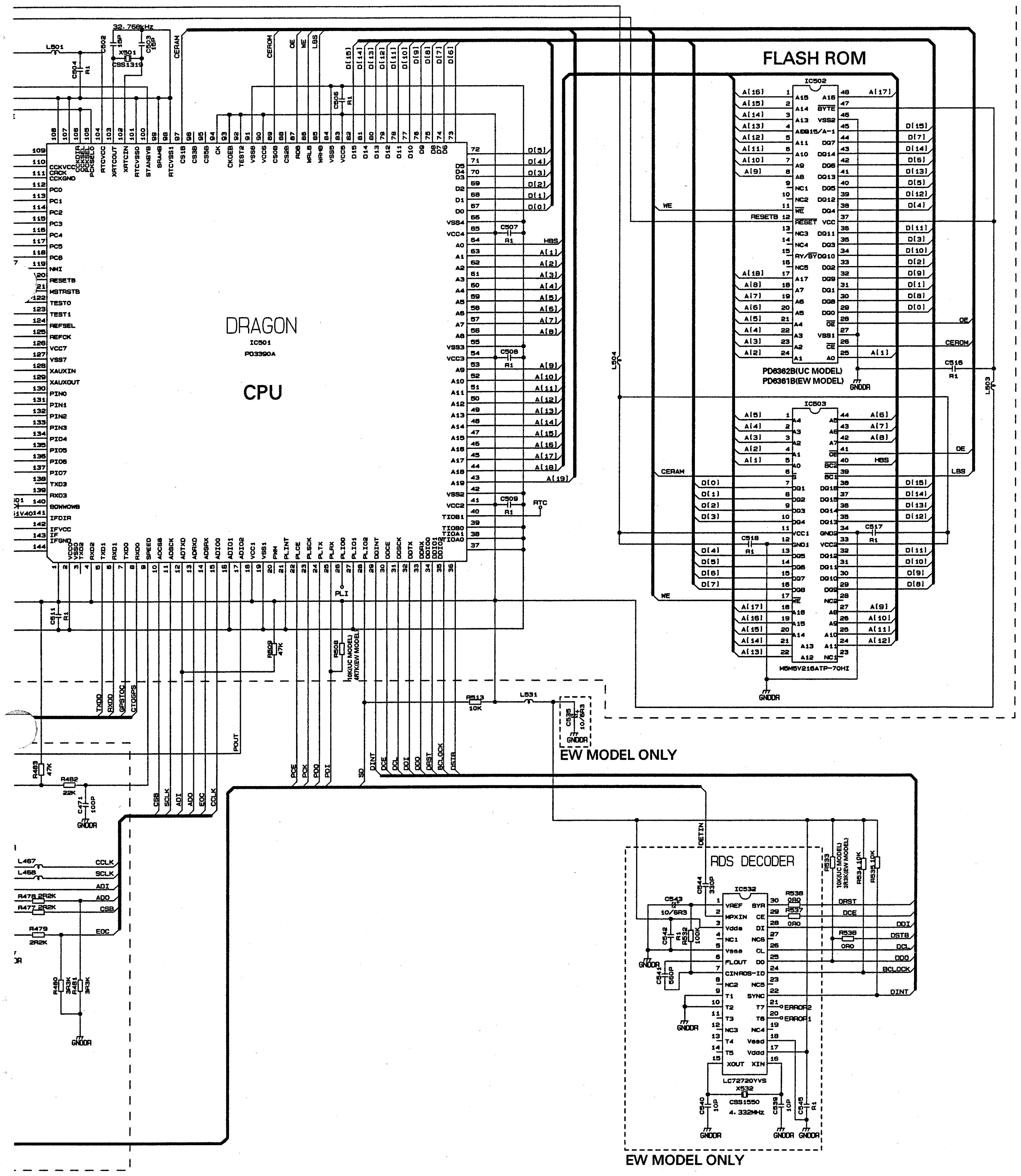
DC/DC Converter 3.3V 5V 2ch


R810
10
C810
4R7
GNDD
R824
15
RB400D
D801
C813
R47
C829
R1
R825 220K
R826 220K
C830
R1
1
2
3
4
8
7
6
5
Q806
RK4936
D803
RB060L-40
C815
10
L801
330/6R3
C819
GNDD
SD3V
C827
10
C828
10
GNDD GNDD
L803
EF801
1
3
2
GNDD
FU801
CEK1199
(4A)
1
2
600mA
B.U
E 5/6
CCONB
DRAMPW
L802
CCD5
C814
R47
RB400D
D802
R827
15
Q807
RK4936
D804
RB060L-40
C816
10
330/6R3
C820
C812
4R7
GNDD
GNDD
5V
5V
1.5A
-mode
p-mode

3.17 GPS UNIT

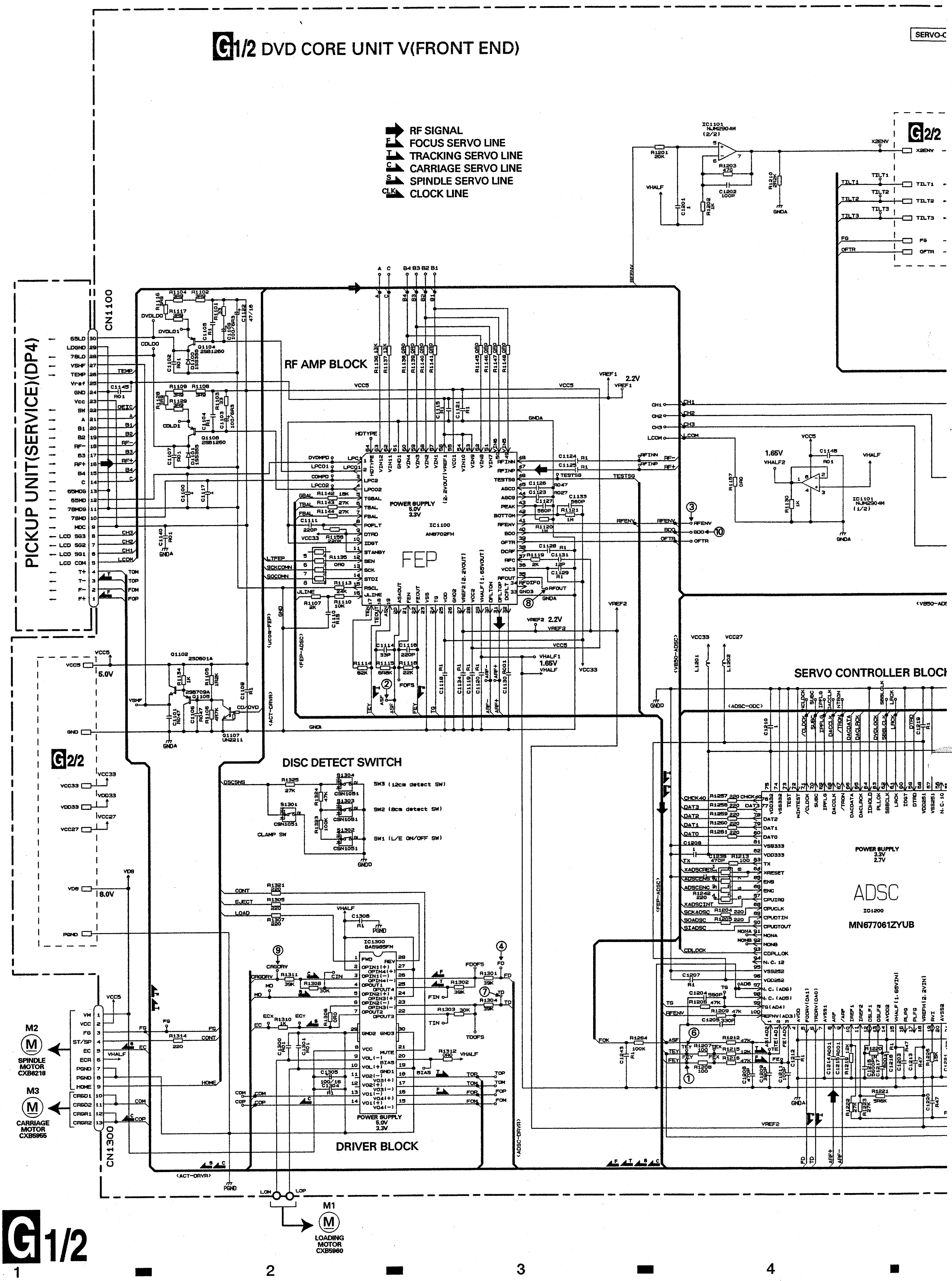

GPS ANTENNA
CN504
CN401
IC401
UPC2749T
F401
CTF1548
IC402
UPB1006GS
RF
X401
CWX2381
16.368MHz
IC441
NJM2100V
Q441
2SB1132
IC504
MAX6364PUT29
RESET8
RST
X502
20.0MHz
D501
FLWE
CN552
CN461
A 1/5
EW MODEL ONLY
IC461
ADC12H034CIMSA
ADC
ANTVCC
VCC3
AD5V
BUP3
GND
RQ
REVSNS
CTGPS
GPSTOC
RXDO
TXDO
SPEED
PSWOUT
FLASHME
SL
GSNSIN
GYROIN
VSNS
PDO
PCK
PDI
PCE
DET GND
SD
DETIN
GNDRF
GNDDR
GNDAD
AV
TV
IF
32f0

F GPS UNIT

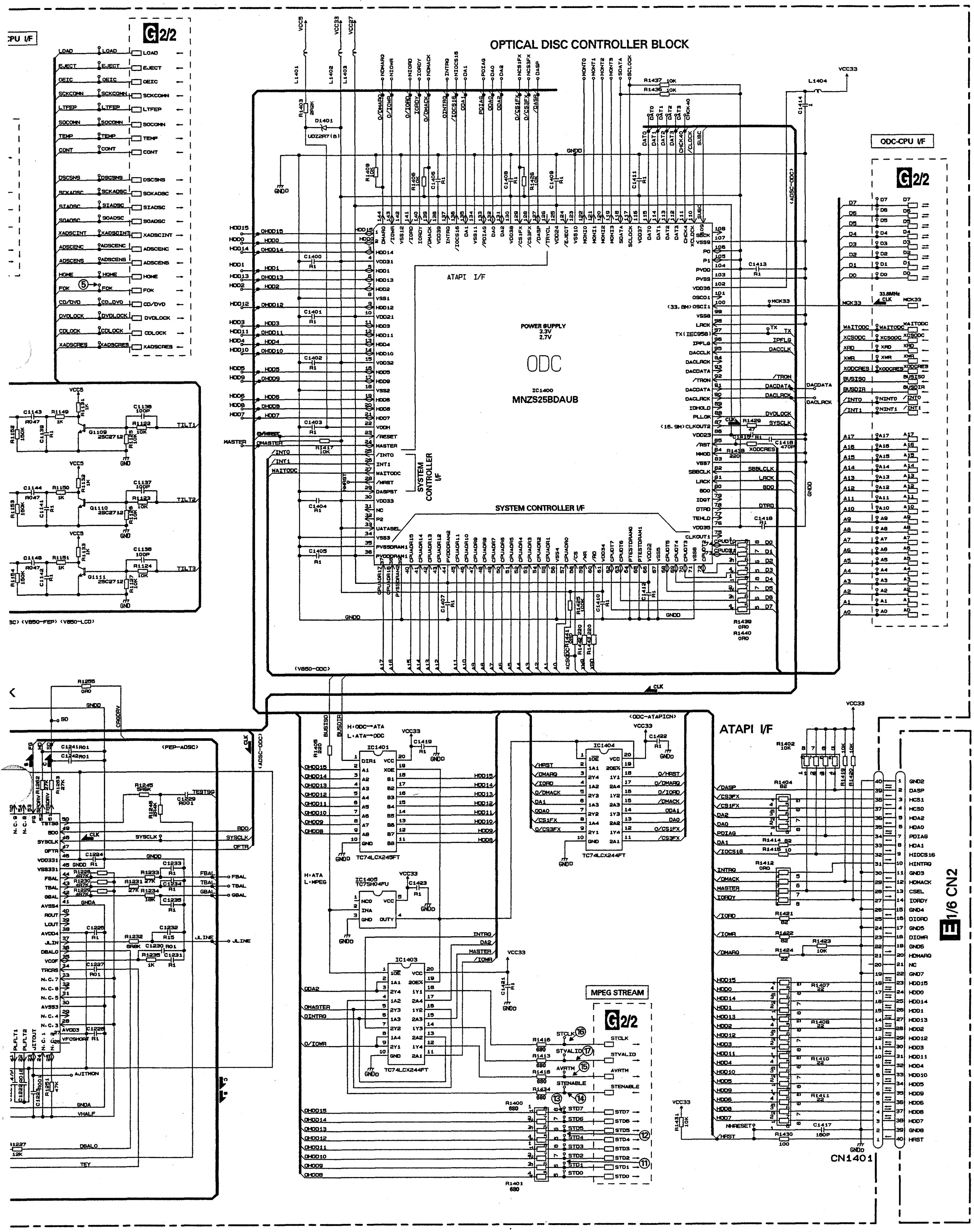

FLASH ROM
IC502
PD6362B(UC MODEL)
PD6361B(EW MODEL)
IC503
M5M5V216ATP-70HI
DRAGON
IC501
PD3390A
CPU
32.768kHz
X501
CSS1319
L501
L504
L503
L531
R513 10K
C535 10/6R3
EW MODEL ONLY
RDS DECODER
IC532
LC72720YVS
X532
CSS1550
4.332MHz
EW MODEL ONLY
R482 22K
R483 47K
C471 100P
R509 47K
R508 10K(UC MODEL) 4R7K(EW MODEL)
R533 10K(UC MODEL) 3R3K(EW MODEL)
R534 10K
R535 10K
GNDDR
WE
OE
CERAM
CEROM
HBS
LBS
RTC
PLI
POUT
DETIN
ERROR2
ERROR1

3.18 DVD MECHANISM MODULE(1/2)(GUIDE PAGE)

G-a 1/2


A
B
C
D
G1/2 DVD CORE UNIT V(FRONT END)
SERVO-C
RF SIGNAL
FOCUS SERVO LINE
TRACKING SERVO LINE
CARRIAGE SERVO LINE
SPINDLE SERVO LINE
CLOCK LINE
G2/2
IC1101 NJM2904M (2/2)
PICKUP UNIT(SERVICE)(DP4)
CN1100
RF AMP BLOCK
IC1100 AN8702FH
FEP
POWER SUPPLY 5.0V 3.3V
2.2V
1.65V
VHALF
DISC DETECT SWITCH
SW3 (12cm detect SW)
SW2 (8cm detect SW)
SW1 (L/E ON/OFF SW)
CLAMP SW
IC1300 BA5985FM
DRIVER BLOCK
POWER SUPPLY 5.0V 3.3V
SERVO CONTROLLER BLOCK
ADSC
IC1200 MN677061ZYUB
POWER SUPPLY 3.3V 2.7V
M2 SPINDLE MOTOR CXB6218
M3 CARRIAGE MOTOR CXB5965
M1 LOADING MOTOR CXB5960
CN1300
5.0V
8.0V
VCC5
VCC33
VDD33
VCC27
VD8
GND
PGND

G-b 1/2


OPTICAL DISC CONTROLLER BLOCK
CPU I/F
G 2/2
ODC
IC1400
MNZS25BDAUB
POWER SUPPLY
3.3V
2.7V
ATAPI I/F
SYSTEM CONTROLLER I/F
SYSTEM CONTROLLER I/F
ODC-CPU I/F
G 2/2
(V850-ODC)
(V850-FEP) (V850-LCD)
(FEP-ADSC)
(ADSC-ODC)
(ODC-ATAPICN)
IC1401
TC74LCX245FT
IC1404
TC74LCX244FT
IC1403
TC74LCX244FT
IC1405
TC7SH04FU
H:ODC→ATA
L:ATA→ODC
H:ATA
L:MPEG
MPEG STREAM
G 2/2
ATAPI I/F
CN1401
E 1/6 CN2
Q1109 2SC2712
Q1110 2SC2712
Q1111 2SC2712
TILT1
TILT2
TILT3
D1401 UDZ2R7(B)
VCC5
VCC33
VCC27
GNDD
MASTER
33.8MHz

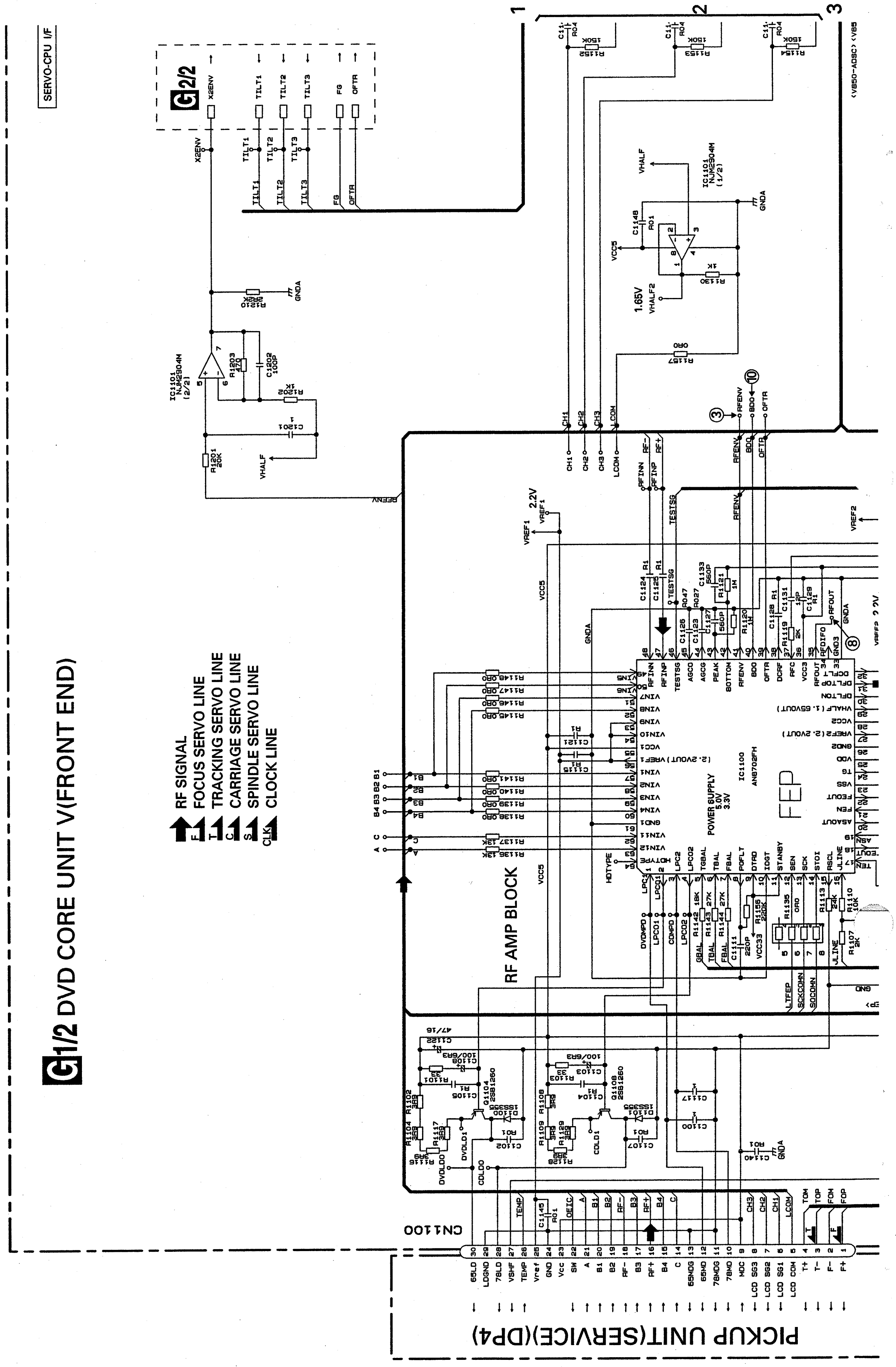
G-b
G-a

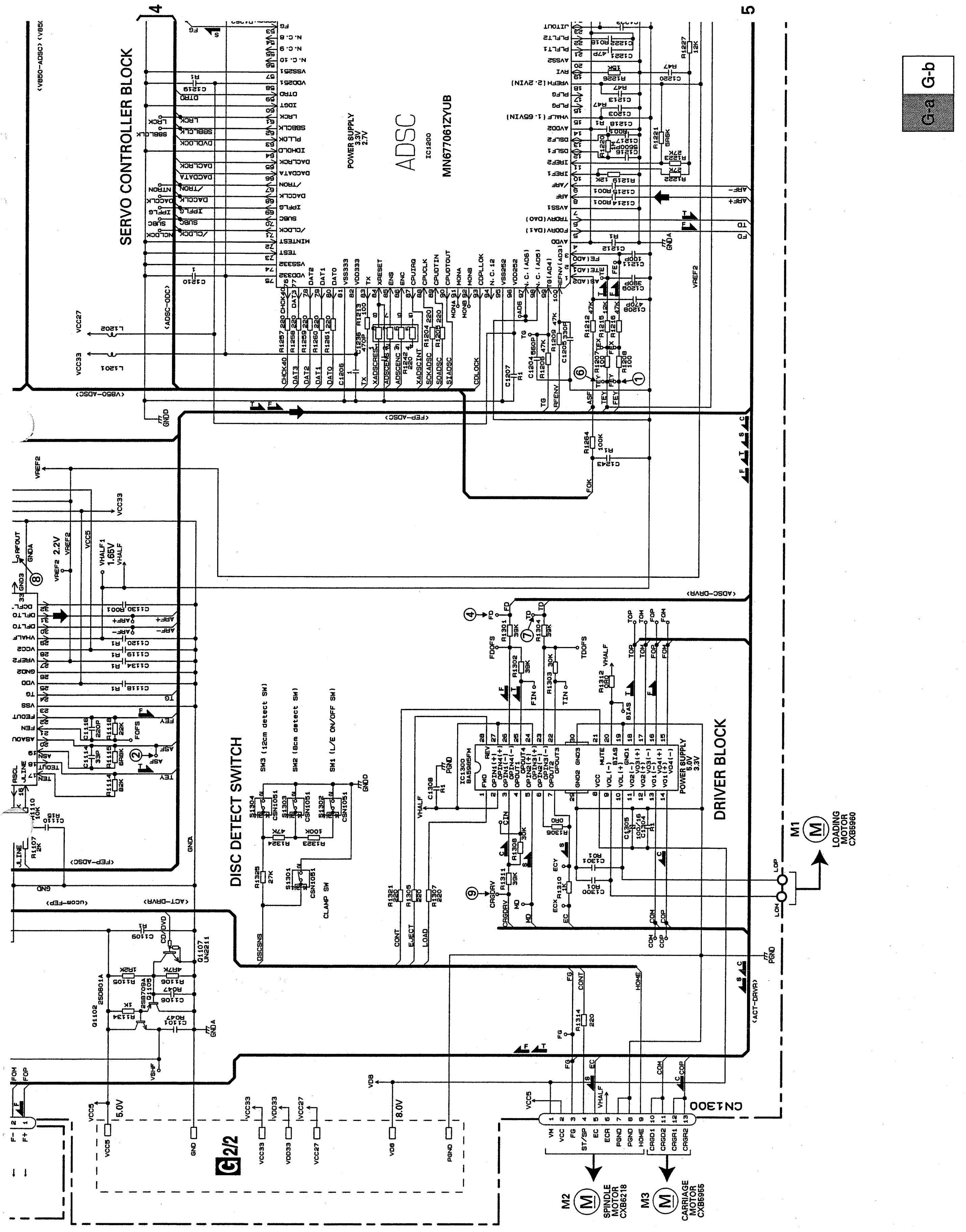
A

B

C

D


G1/2 DVD CORE UNIT V(FRONT END)
RF SIGNAL
FOCUS SERVO LINE
TRACKING SERVO LINE
CARRIAGE SERVO LINE
SPINDLE SERVO LINE
CLOCK LINE
SERVO-CPU I/F
G2/2
X2ENV
TILT1
TILT2
TILT3
FG
OFTR
GNDA
VHALF
IC1101 NJM2904M (2/2)
IC1101 NJM2904M (1/2)
R1203 470
C1202 100P
R1202 1K
C1201 1
R1201 20K
R1210 2R2K
R1130 1K
C1148 R01
VCC5
1.65V
VHALF2
R1157 0R0
R1152 150K
R1153 150K
R1154 150K
RFENV
BDO
OFTR
2.2V
VREF1
VREF2
RF AMP BLOCK
IC1100 AN8702FH
POWER SUPPLY 5.0V 3.3V
FEP
HDTYPE
VCC5
GNDA
TESTSG
CH1
CH2
CH3
LCOM
RF-
RF+
Q1104 2SB1260
Q1108 2SB1260
D1100 1SS355
D1101 1SS355
DVDLD0
DVDLD1
CDLD0
CDLD1
C1122 47/16
C1100
C1147
C1140 R01
C1145 R01
CN1100
65LD
LDGND
78LD
VSHF
TEMP
Vref
GND
Vcc
SW
A
B1
B2
RF-
B3
RF+
B4
C
65MDG
65MD
78MDG
78MD
MDC
LCD SG3
LCD SG2
LCD SG1
LCD COM
T+
T-
F-
F+
PICKUP UNIT(SERVICE)(DP4)


SERVO CONTROLLER BLOCK
ADSC
IC1200
MN677061ZYUB
POWER SUPPLY
3.3V
2.7V
DISC DETECT SWITCH
SW3 (12cm detect SW)
SW2 (8cm detect SW)
SW1 (L/E ON/OFF SW)
CLAMP SW
DRIVER BLOCK
IC1300
BA5965FM
POWER SUPPLY
5.0V
3.3V
M1
LOADING MOTOR
CXB5960
M2
SPINDLE MOTOR
CXB6218
M3
CARRIAGE MOTOR
CXB5956
CN1300
G 2/2
VCC5
5.0V
GND
VCC33
VDD33
VCC27
VD8
8.0V
PGND
Q1102 2SD601A
Q1105 2SB709A
Q1107 UN2211
VREF2 2.2V
VHALF1 1.65V
4
5
G-a
G-b

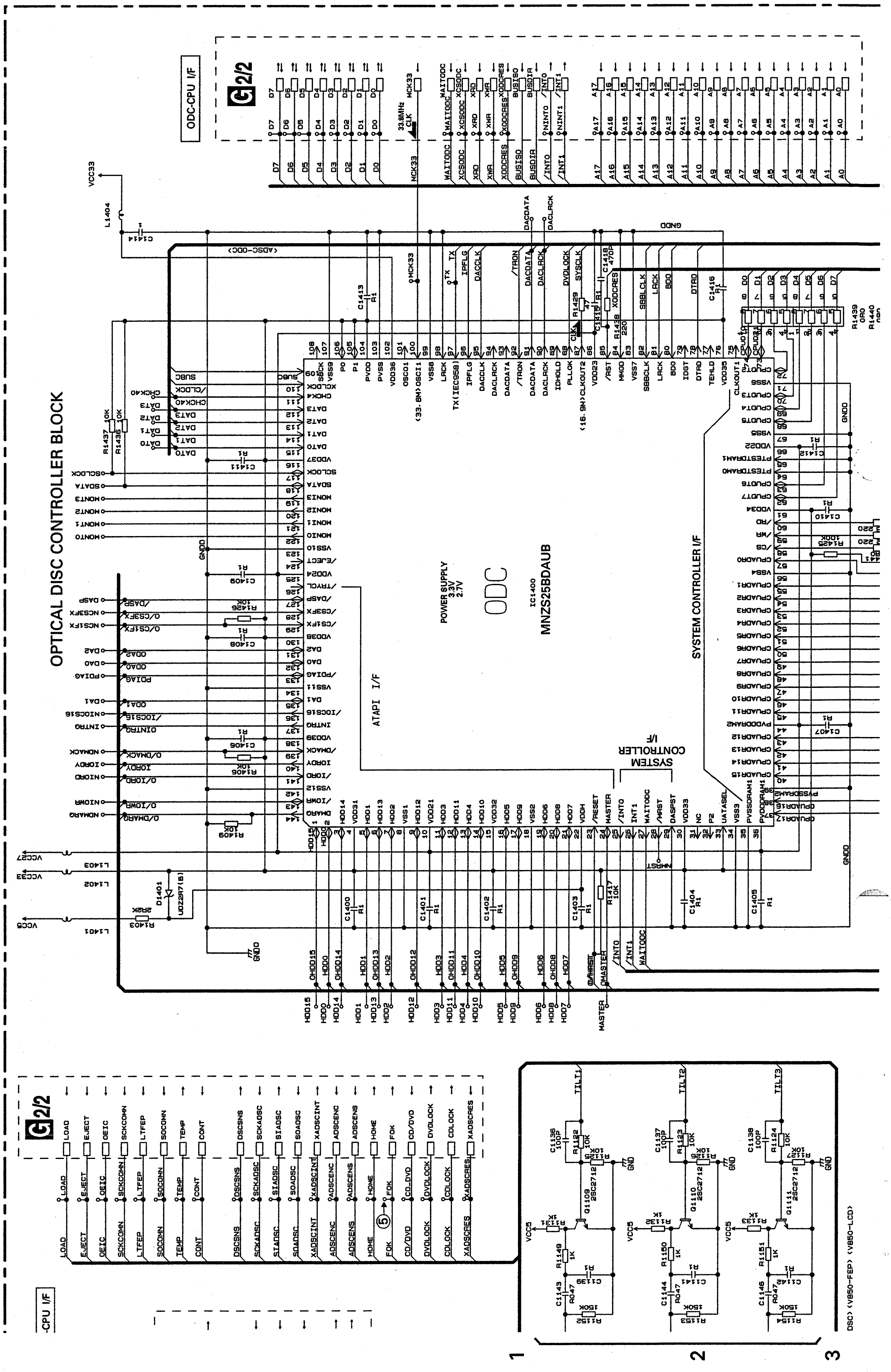
G-b
G-a

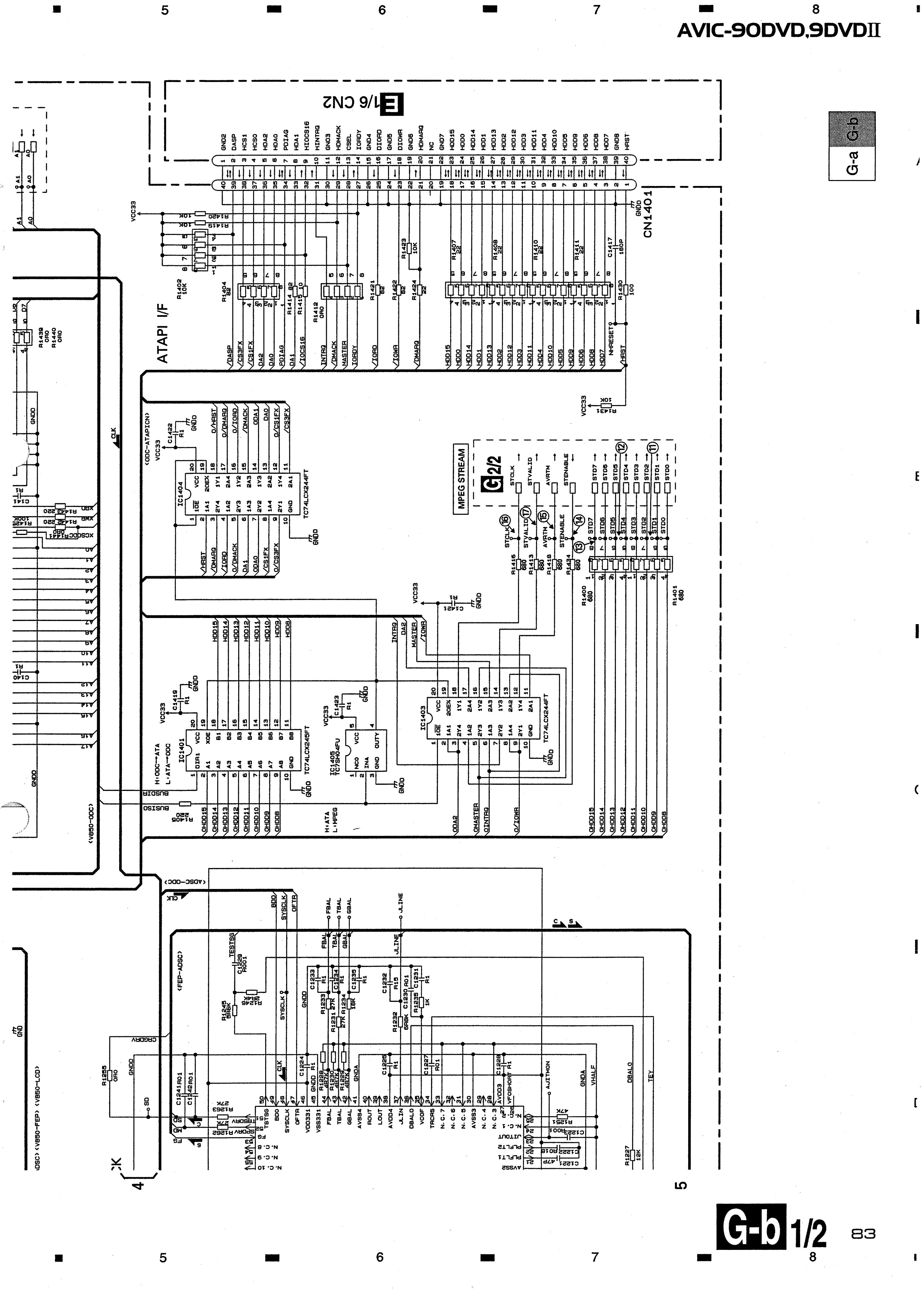
A

B

C

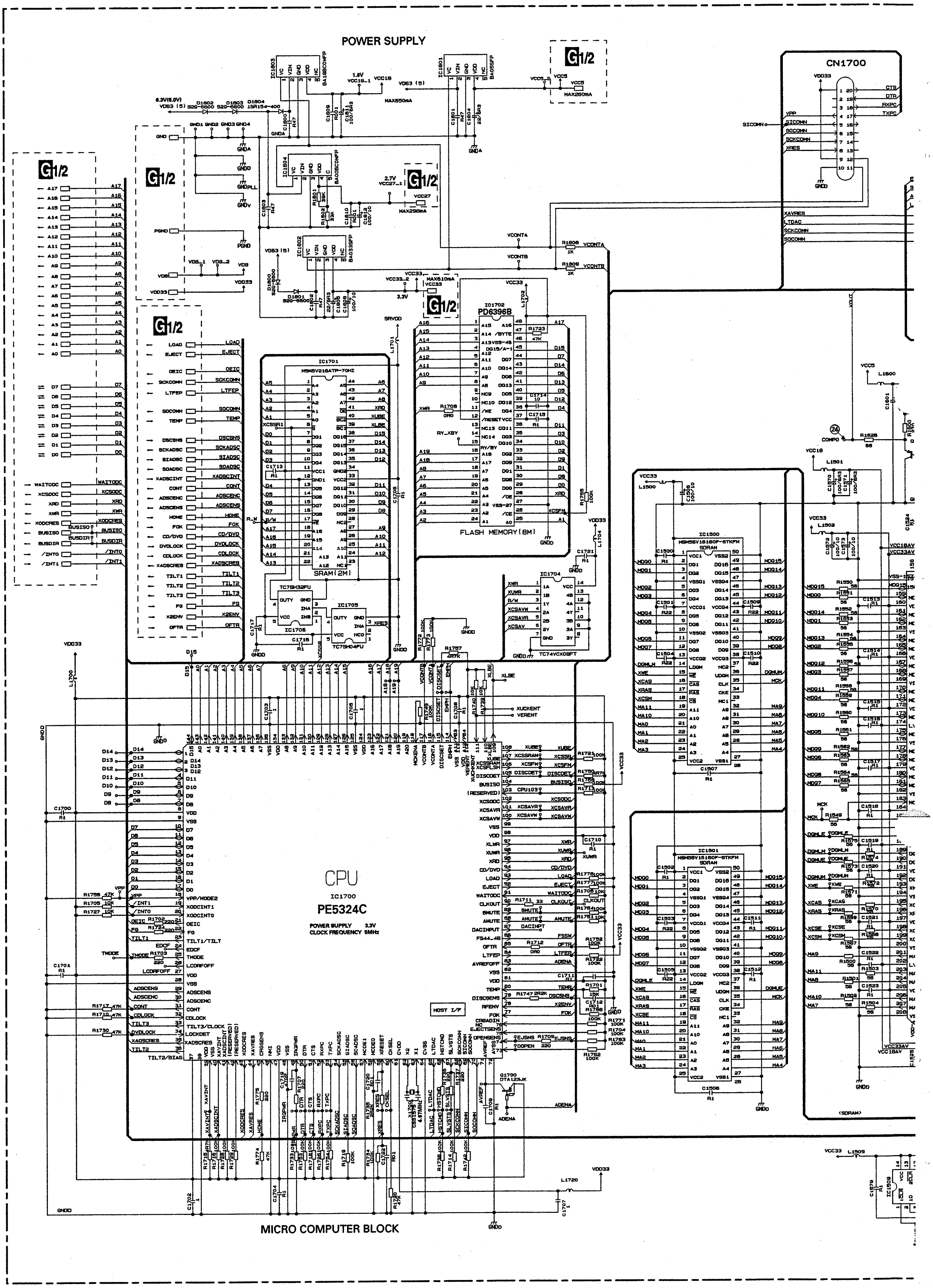
D


OPTICAL DISC CONTROLLER BLOCK
ODC-CPU I/F
G 2/2
ODC
IC1400
MN2S25BDAUB
POWER SUPPLY
3.3V
2.7V
ATAPI I/F
SYSTEM CONTROLLER I/F
SYSTEM CONTROLLER I/F
VCC33
VCC27
VCC5
L1401
L1402
L1403
L1404
D1401
UDZ2R7(B)
R1403
2R2K
GNDD
33.8MHz CLK
MCK33
<ADSC-ODC>
DACDATA
DACLRCK
R1439
R1440
C1400
C1401
C1402
C1403
C1404
C1405
R1417
10K
MASTER
-CPU I/F
LOAD
EJECT
OEIC
SCKCOMN
LTFEP
SOCOMN
TEMP
CONT
DSCSNS
SCKADSC
SIADSC
SOADSC
XADSCINT
ADSCENC
ADSCENS
HOME
FOK
CD/DVD
DVDLOCK
CDLOCK
XADSCRES
TILT1
TILT2
TILT3
Q1109
Q1110
Q1111
2SC2712
VCC5
DSC>(VB50-FEP)(VB50-LCD)
1
2
3


5
6
7
8
E 1/6 CN2
CN1401
ATAPI I/F
GND2
DASP
HCS1
HCS0
HDA2
HDA0
PDIAG
HDA1
HIOCS16
HINTRQ
GND3
HDMACK
CSEL
IORDY
GND4
DIORD
GND5
DIOWR
GND6
HDMARQ
NC
GND7
HDD15
HDD0
HDD14
HDD1
HDD13
HDD2
HDD12
HDD3
HDD11
HDD4
HDD10
HDD5
HDD9
HDD6
HDD8
HDD7
GND8
HRST
VCC33
R1420 10K
R1419 10K
R1402 10K
R1404 82
R1414 82
R1415 10
R1412 0R0
R1421 82
R1422 82
R1423 10K
R1424 22
R1407 22
R1408 22
R1410 22
R1411 22
C1417 180P
R1430 100
NHRESET0
R1431 10K
GNDD
IC1404
TC74LCX244FT
C1422
<ODC-ATAPICN>
MPEG STREAM
G 2/2
STCLK
STVALID
AVRTM
STENABLE
STD7
STD6
STD5
STD4
STD3
STD2
STD1
STD0
R1416 680
R1413 680
R1418 680
R1434 680
R1400 680
R1401 680
C1421
IC1401
TC74LCX245FT
H:ODC→ATA
L:ATA→ODC
C1419
IC1405
TC7SH04FU
C1423
IC1403
TC74LCX244FT
H:ATA
L:MPEG
BUSDIR
BUSISO
R1405 220
<V850-ODC>
ODA2
OMASTER
OINTRQ
O/IOWR
OHDD15
OHDD14
OHDD13
OHDD12
OHDD11
OHDD10
OHDD9
OHDD8
INTRQ
DA2
MASTER
/IOWR
CLK
<ADSC-ODC>
BDO
SYSCLK
OFTR
FBAL
TBAL
GBAL
JLINE
TESTSG
C1229
<FEP-ADSC>
R1245 6R8K
R1246
SYSCLK
GNDD
C1233
C1234
C1235
C1232
C1230
C1231
R1233 27K
R1231 27K
R1234 27K
R1235 1K
R1232 6R8K
C1224
C1226
C1227
C1228
R1229
R1230
R1228
AJITMON
GNDA
VHALF
DBALO
TEY
R1227 12K
R1251 47K
C1223
C1222
C1221 47P
R1253 27K
R1252 27K
C1241 R01
C1242 R01
R1255 0R0
CRGDRV
GNDD
SD
MD
FG
<V850-FEP> <V850-LCD>
XBR
XWR
XCSODC
R1443 220
R1442 220
R1441 0R0
R1439 0R0
R1440 0R0
A0
A1
A17
4
5

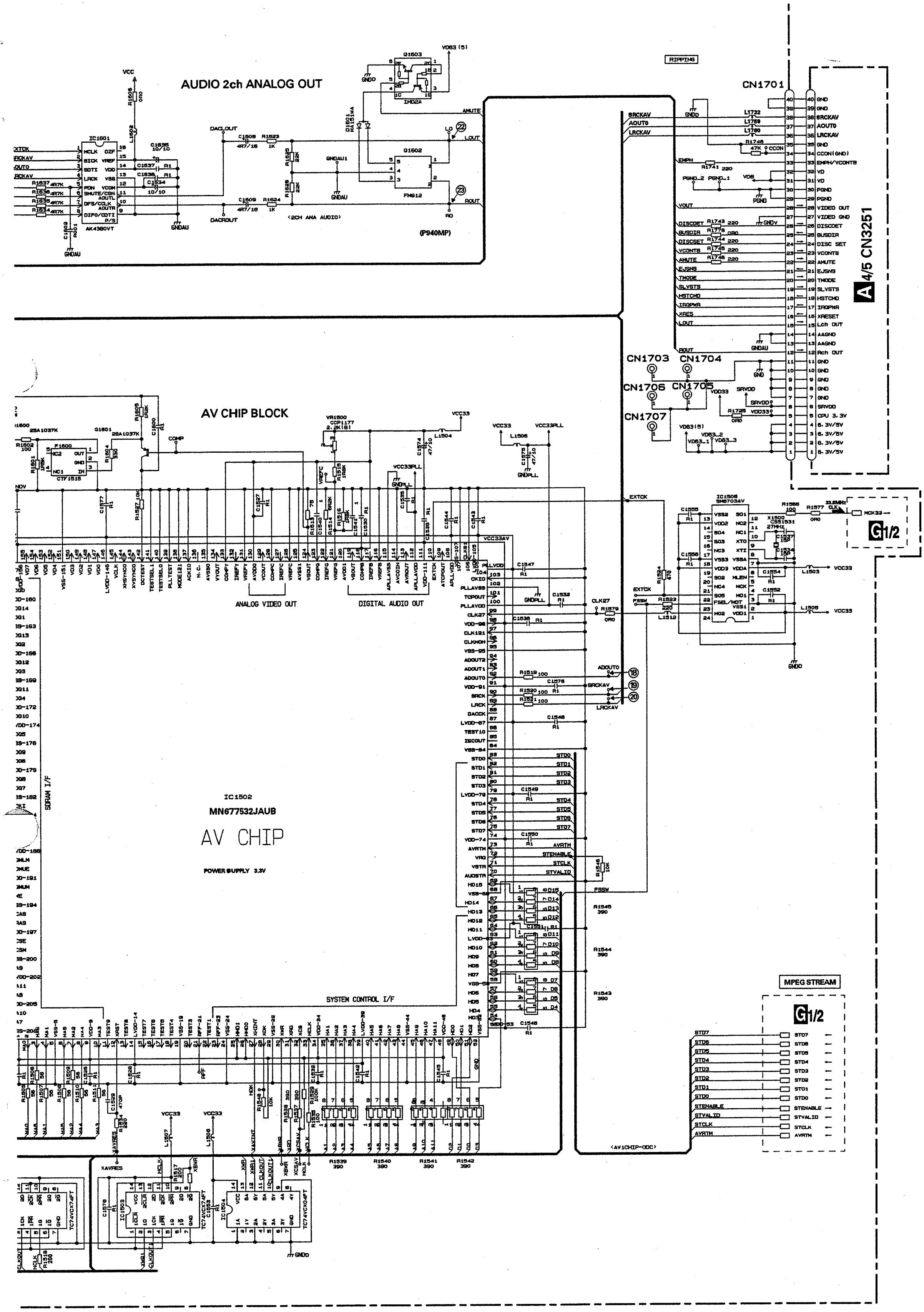
3.19 DVD MECHANISM MODULE(2/2)(GUIDE PAGE)

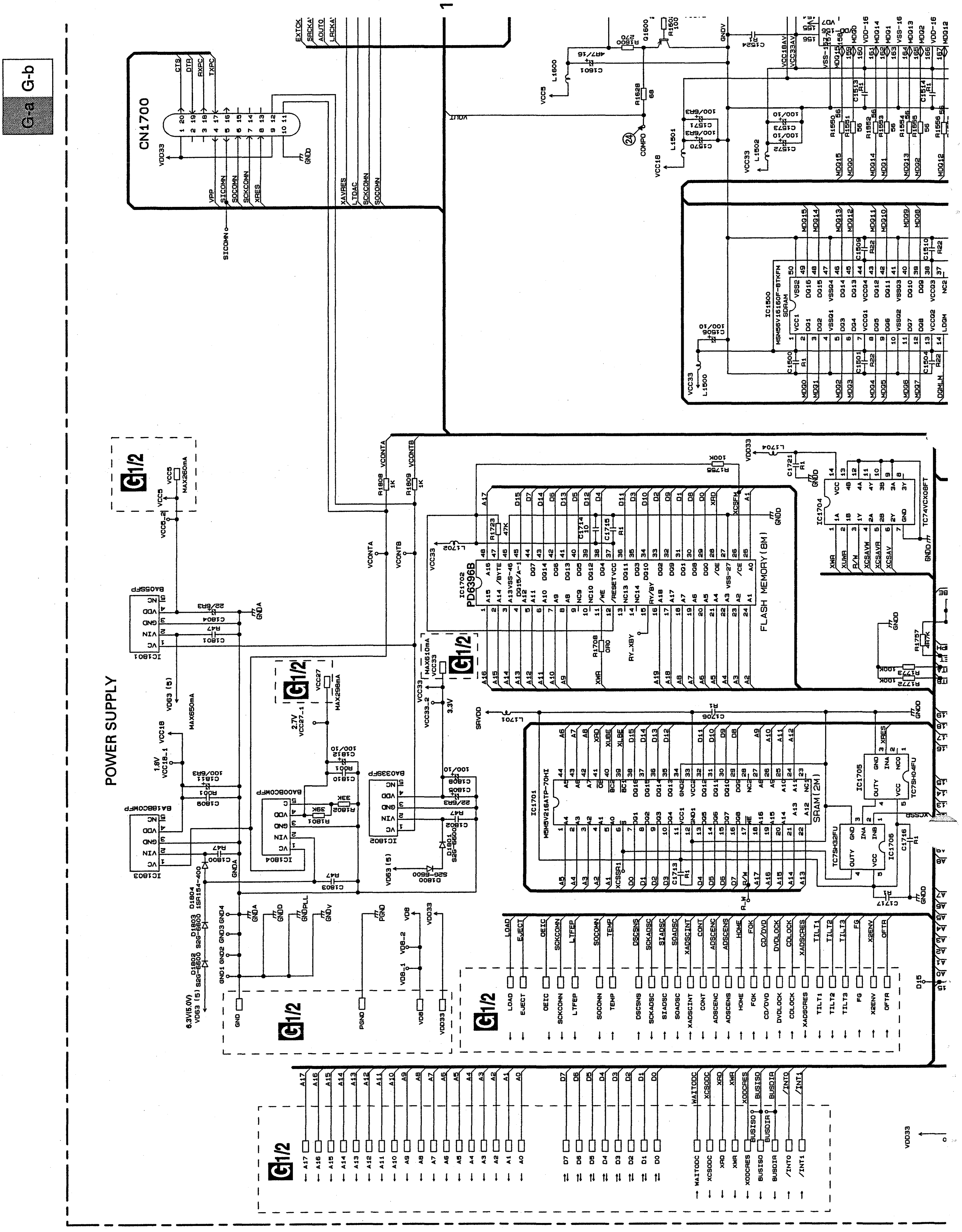
G-a 2/2

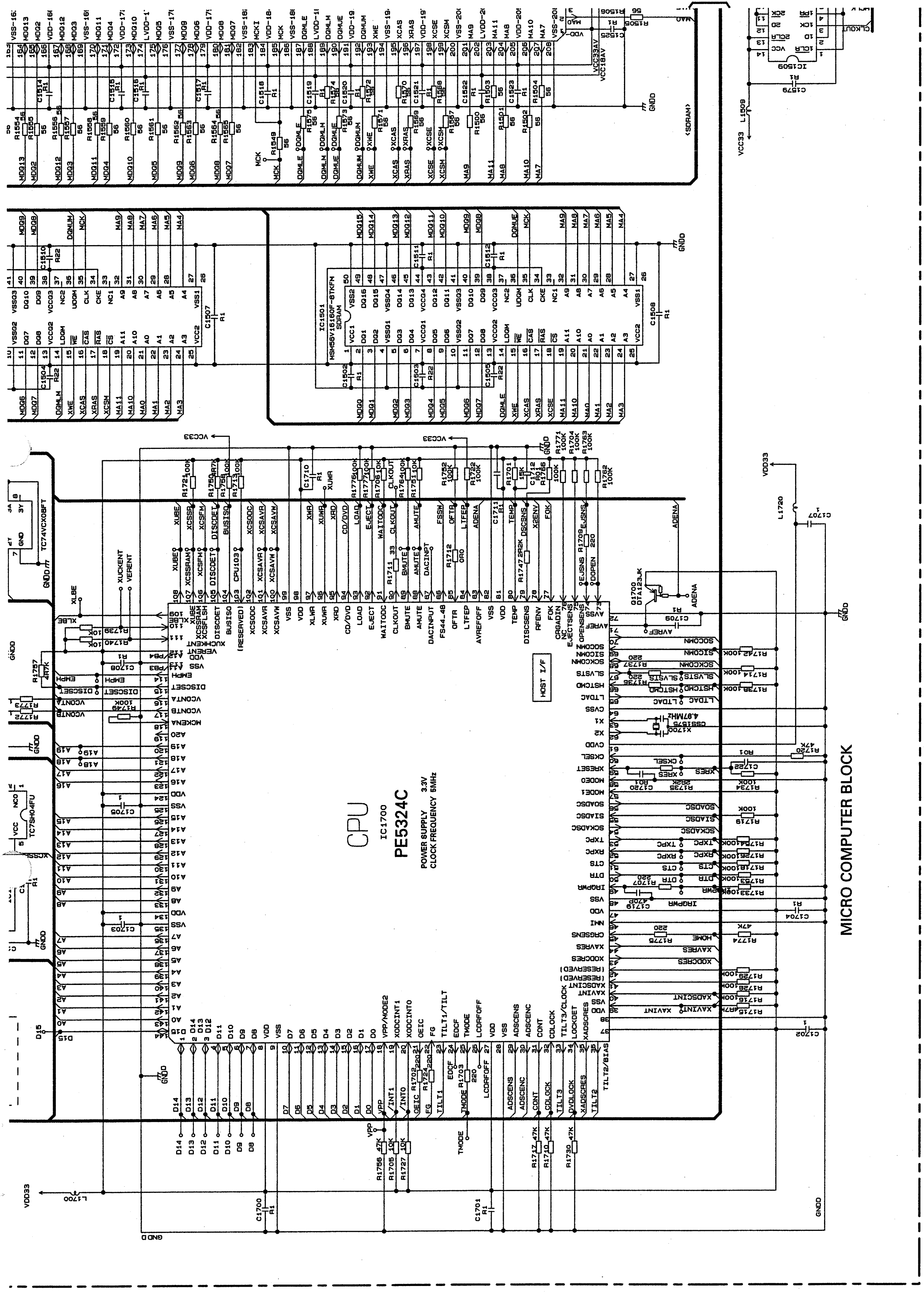

POWER SUPPLY
G1/2
IC1803 BA18BC0WFP
IC1801 BA033FP
IC1804 BA00BC0WFP
IC1802 BA033SFP
MAX550mA
MAX250mA
MAX290mA
MAX510mA
VCC18
VCC5
VCC27
VCC33
VD8
VDD33
CN1700
IC1702 PD6396B
FLASH MEMORY(8M)
IC1701 HM5V216ATP-70HI
SRAM(2M)
IC1705 TC7SH32FU
IC1706 TC7SH04FU
IC1704 TC74VCX08FT
IC1500 HM5SV16160F-8TKFH SDRAM
IC1501 HM5SV16160F-8TKFH SDRAM
CPU
IC1700
PE5324C
POWER SUPPLY 3.3V
CLOCK FREQUENCY 8MHz
HOST I/F
Q1700 DTA123JK
X1700 4.67MHz
(SDRAM)
MICRO COMPUTER BLOCK

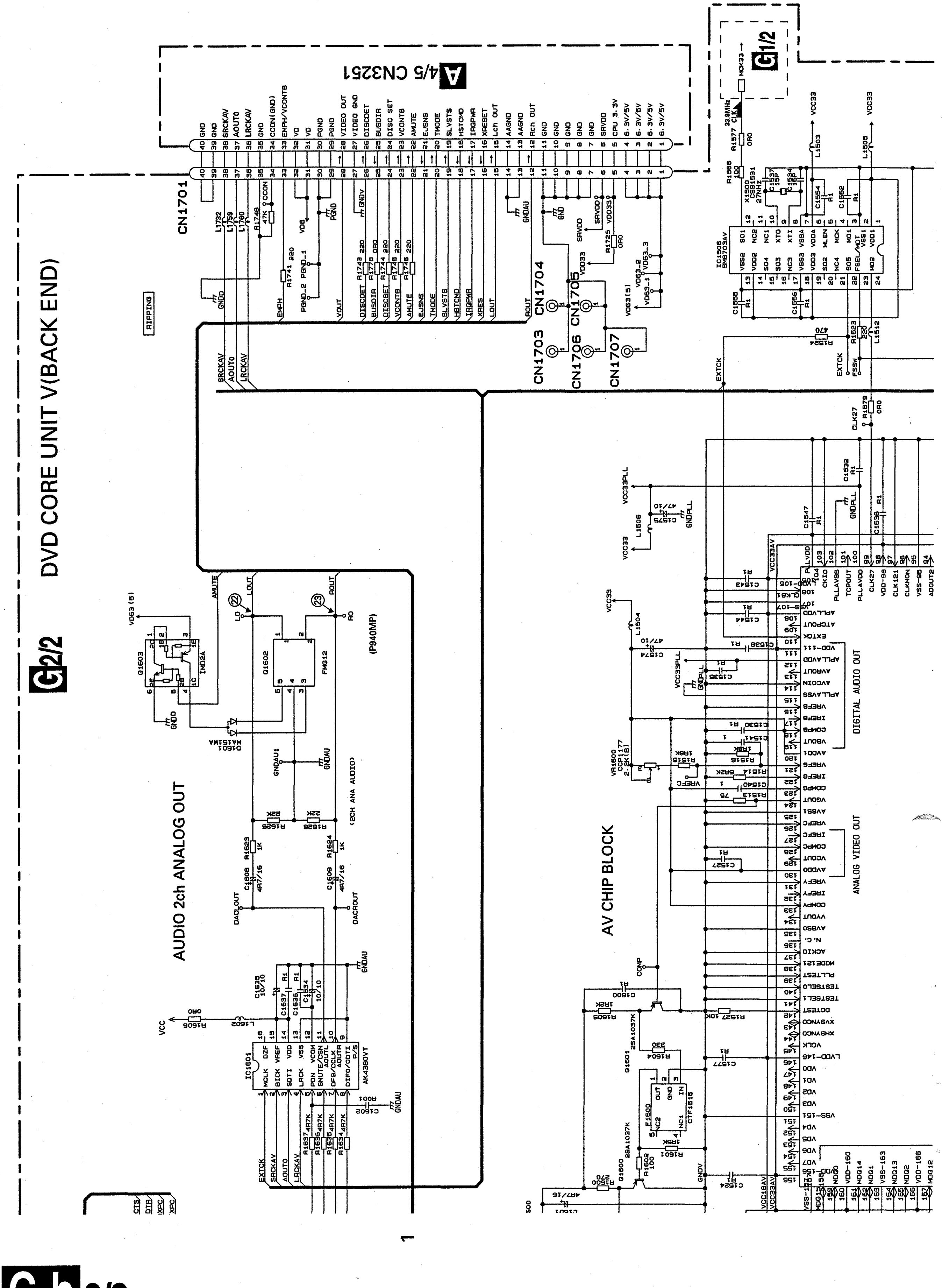
G-b 2/2

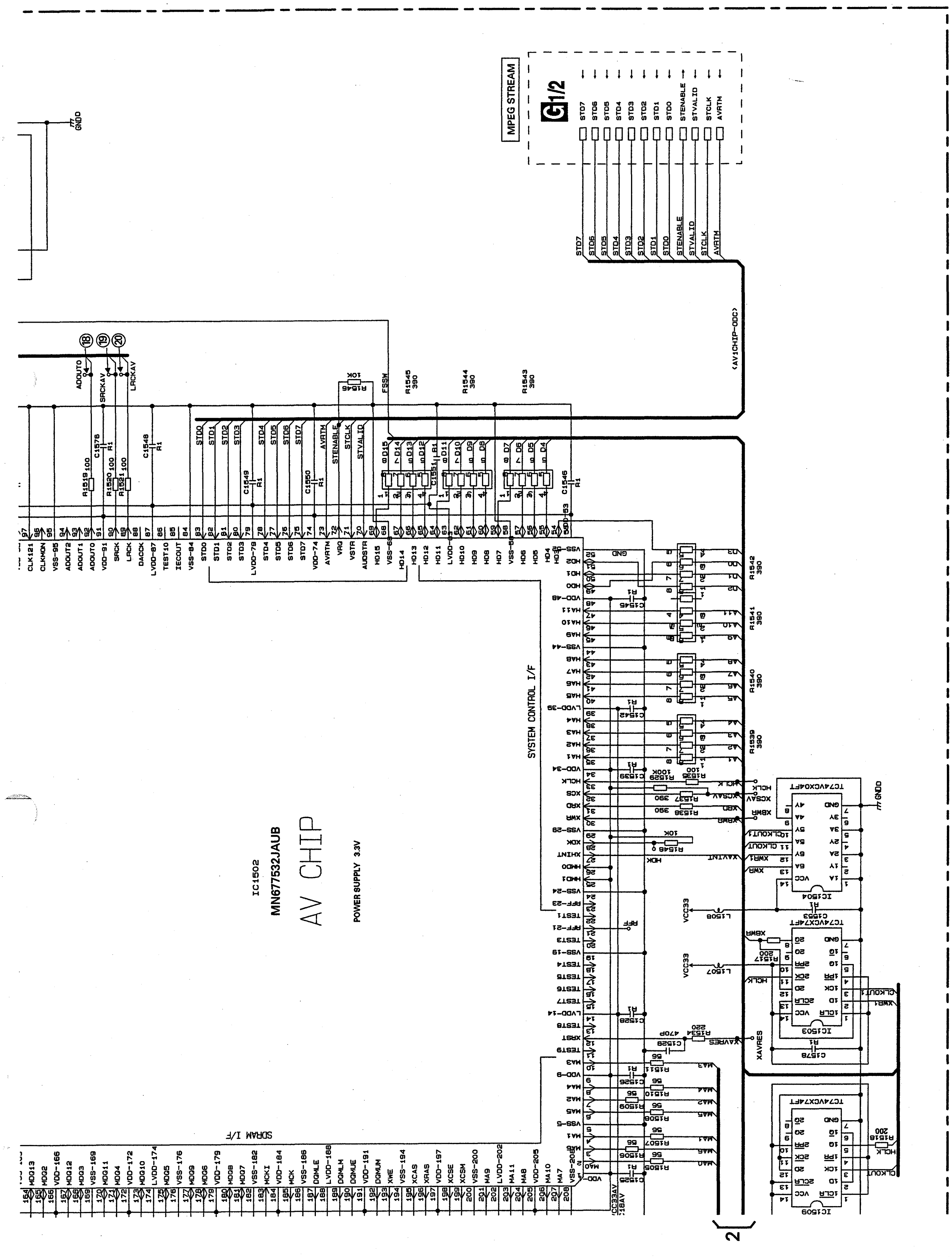
G 2/2 DVD CORE UNIT V(BACK END)


AUDIO 2ch ANALOG OUT
IC1601
AK4380VT
Q1603
IMD2A
Q1602
FM912
(2CH ANA AUDIO)
(P940MP)
LO
RO
LOUT
ROUT
RIPPING
CN1701
A 4/5 CN3251
CN1703
CN1704
CN1705
CN1706
CN1707
AV CHIP BLOCK
ANALOG VIDEO OUT
DIGITAL AUDIO OUT
IC1502
MN677532JAUB
AV CHIP
POWER SUPPLY 3.3V
SDRAM I/F
SYSTEM CONTROL I/F
IC1506
SM8703AV
G1/2
MPEG STREAM
G1/2
IC1503
TC74VCX74FT
IC1504
TC74VCX04FT
(AV1CHIP-ODC)


G-a
G-b
A
B
C
D
CN1700
POWER SUPPLY
IC1801
BA05SFP
IC1802
BA033SFP
IC1803
BA18BC0WFP
IC1804
BA00BC0WFP
IC1702
PD6396B
FLASH MEMORY (8M)
IC1701
M5M5V216ATP-70HI
SRAM (2M)
IC1500
M5M56V16160F-8TKFH
SDRAM
IC1704
TC74VCX08FT
IC1705
TC7SH04FU
IC1706
TC7SH32FU
G1/2
VCC5
VCC18
VCC27
VCC33
VDD33
VD63 (5)
MAX250mA
MAX650mA
MAX290mA
MAX610mA
VCONTA
VCONTB
SICOMN
SOCOMN
SCKCOMN
XRES
VPP
CTS
DTR
RXPC
TXPC
VOUT
COMPO
GND
PGND
VD8
A17 A16 A15 A14 A13 A12 A11 A10 A9 A8 A7 A6 A5 A4 A3 A2 A1 A0
D7 D6 D5 D4 D3 D2 D1 D0
WAITODC XCSODC XRD XWR XODCRES BUSISO BUSDIR /INT0 /INT1
LOAD EJECT OEIC SCKCOMN LTFEP SOCOMN TEMP DSCSNS SCKADSC SIADSC SOADSC XADSCINT CONT ADSCENC ADSCENS HOME FOK CD/DVD DVDLOCK CDLOCK XADSCRES TILT1 TILT2 TILT3 FG X2ENV OFTR


2
CPU
IC1700
PE5324C
POWER SUPPLY 3.3V
CLOCK FREQUENCY 5MHz
HOST I/F
MICRO COMPUTER BLOCK
IC1501
SDRAM
<SDRAM>
IC1509
TC74VCX08FT
TC7SH04FU
Q1700
DTA123JK
X1700
VCC33
VDD33
GNDD

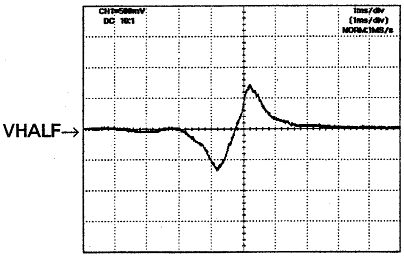

G 2/2
DVD CORE UNIT V(BACK END)
A 4/5 CN3251
G 1/2
CN1701
CN1703
CN1704
CN1705
CN1706
CN1707
RIPPING
AUDIO 2ch ANALOG OUT
(2CH ANA AUDIO)
(P940MP)
IC1601 AK4380VT
Q1602 FMG12
Q1603 IMD2A
D1601 MA151WA
AV CHIP BLOCK
IC1505 SM8703AV
X1500 CSS1531 27MHz
DIGITAL AUDIO OUT
ANALOG VIDEO OUT
VR1500 CCP1177 2.2K(B)
F1500 CTF1515
Q1600 2SA1037K
Q1601 2SA1037K
33.8MHz CLK
EXTCK
CLK27
VCC33
VCC33PLL
VD63 (5)
GNDAU
AMUTE
LOUT
ROUT
SRCKAV
AOUT0
LRCKAV


MPEG STREAM
G 1/2
STD7
STD6
STD5
STD4
STD3
STD2
STD1
STD0
STENABLE
STVALID
STCLK
AVRTM
(AV1CHIP-ODC)
ADOUT0
SRCKAV
LRCKAV
FSSW
R1545 390
R1544 390
R1543 390
R1542 390
R1541 390
R1540 390
R1539 390
IC1502
MN677532JAUB
AV CHIP
POWER SUPPLY 3.3V
SYSTEM CONTROL I/F
SDRAM I/F
IC1504
TC74VCX04FT
IC1503
TC74VCX74FT
IC1509
TC74VCX74FT
XAVRES
VCC33
L1507
L1508
HCLK
CLKOUT1
XWR1
GNDD
VCC33AV
2

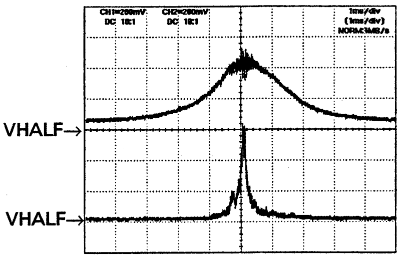
Waveforms

Note:1. The encircled number denote measuring pointes in the circuit diagram.
2. Reference voltage VHALF : 1.65V

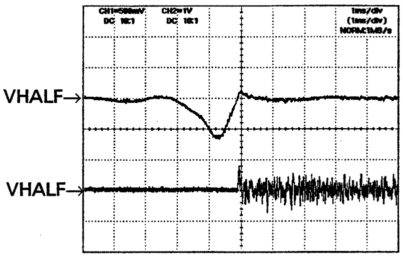
① FEY 500mV/div. 1ms/div.
Focus search



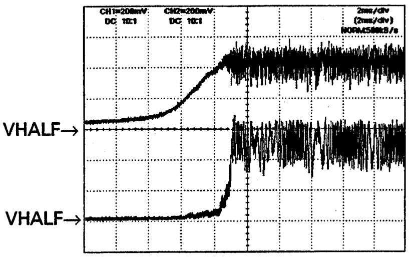
② CH1: ASF 200ms/div. 1ms/div.
③ CH2: RFENV
Focus search



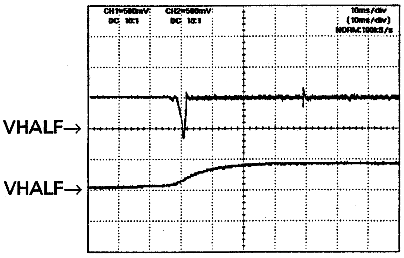
① CH1: FEY 500mV/div. 1ms/div.
④ CH2: FD 1V/div. 1ms/div.
Focus close



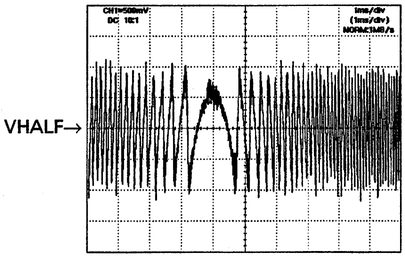
② CH1: ASF 200mV/div. 2ms/div.
③ CH1: RFENV
Focus close



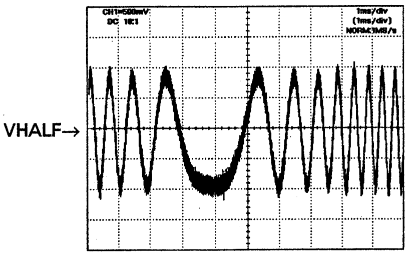
① CH1: FEY 500mV/div. 10ms/div.
⑤ CH2: FOK
Focus close



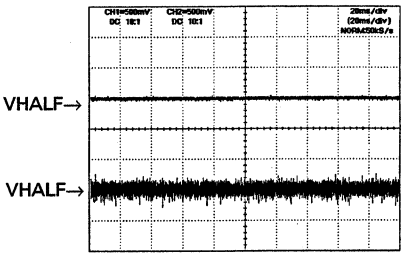
⑥ CH1: TEY 500mV/div. 1ms/div.
Focus close(DVD)



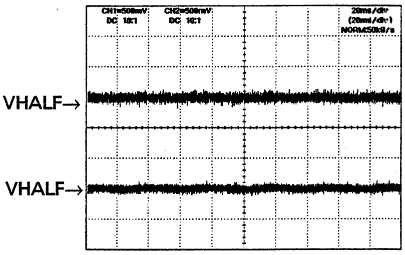
⑥ CH1: TEY 500mV/div. 1ms/div.
Focus close(CD)



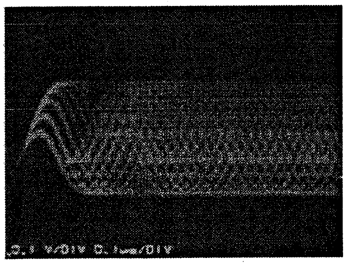
① CH1: FEY 500mV/div.20ms/div.
④ CH2: FD
Play



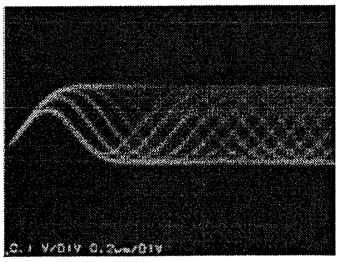
⑥ CH1: TEY 500mV/div.20ms/div.
⑦ CH2: TD
Play



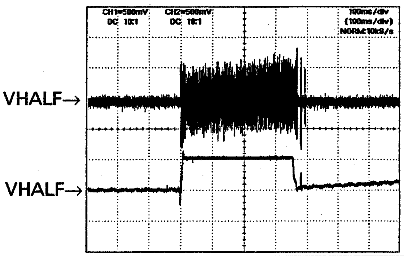
⑧ CH1: RFOUT 0.1V/div. 0.1μs/div.
Play(DVD surroundings on inside)



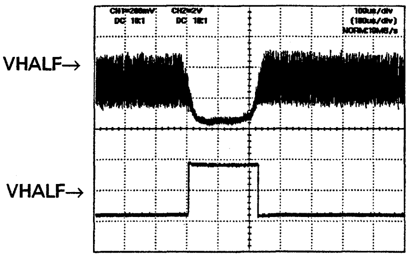
⑧ CH1: RFOUT 0.1V/div. 0.2μs/div.
Play(CD)



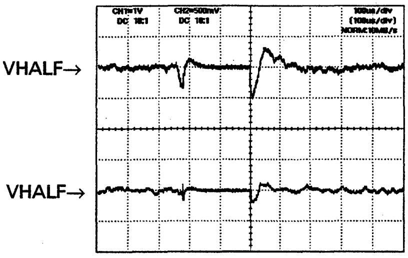
⑥ CH1: TEY 500mV/div. 100ms/div.
⑨ CH2: CRGDRV
Surroundings on inside->
surroundings on outside



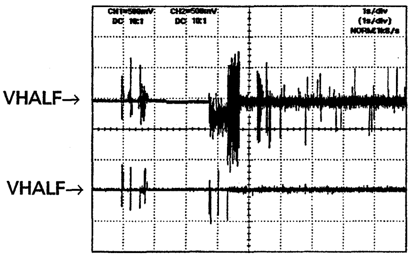
⑧ CH1: RFOUT 200mV/div. 100μs/div.
⑩ CH2: BDO 2V/div. 100μs/div.
Black dot



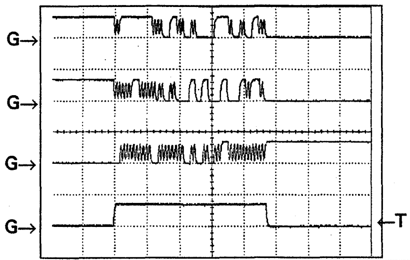
④ CH1: FD 1V/div. 100μs/div.
⑦ CH2: TD 500mV/div. 100μs/div.
Black dot



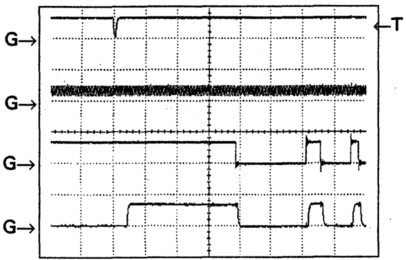
⑥ CH1: TEY 500mV/div. 1s/div.
① CH2: FEY
EDC1 mode set up(DVD)



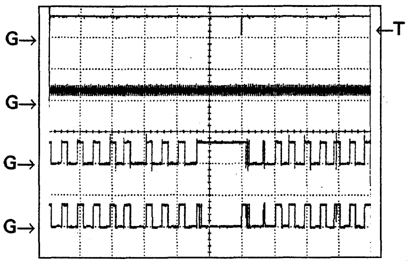
⑪ CH1: STD1
⑫ CH2: STD4 5V/div. 2μs/div.
⑬ CH3: STD7
⑭ CH4: STENABLE



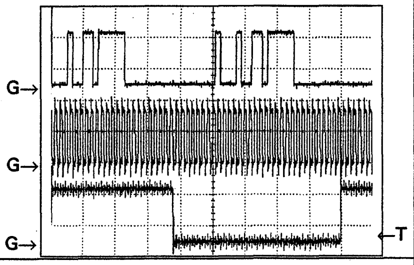
⑮ CH1: AVRTM
⑯ CH2: STCLK 5V/div. 2μs/div.
⑰ CH3: STVALID
⑭ CH4: STENABLE



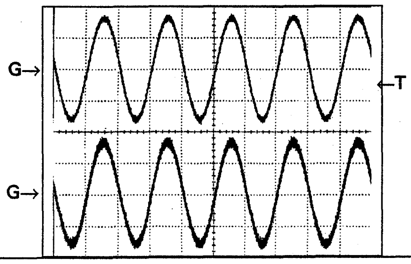
⑮ CH1: AVRTM
⑯ CH2: STCLK 5V/div. 50μs/div.
⑰ CH3: STVALID
⑭ CH4: STENABLE



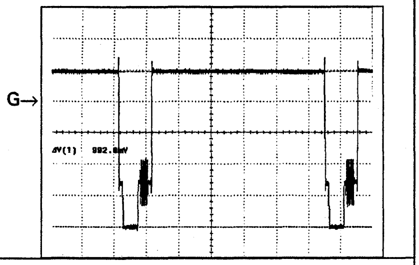
⑱ CH1: AOUT0
⑲ CH2: SRCKAV 2V/div. 2μs/div.
⑳ CH3: LRCKAV



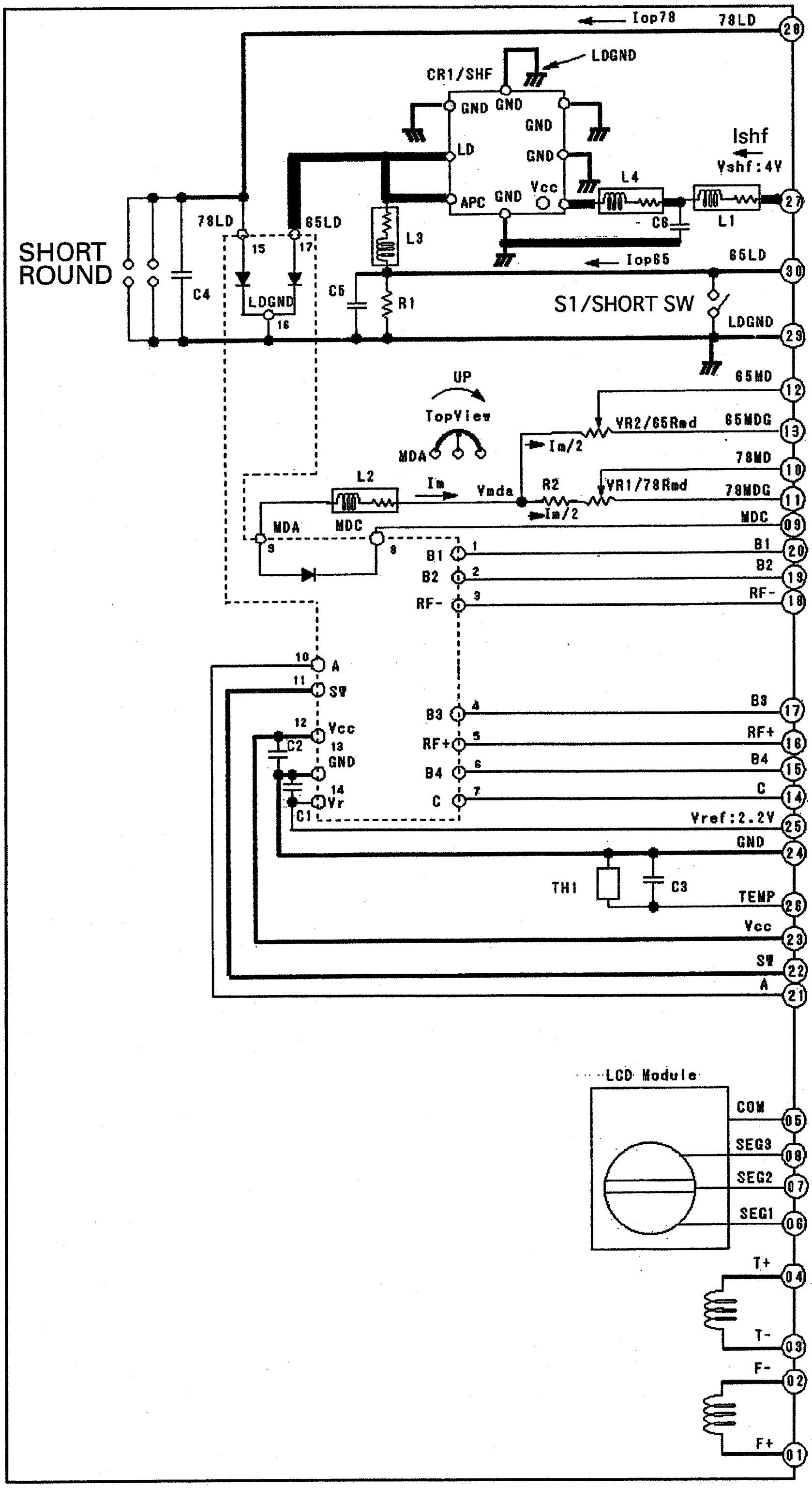
㉒ CH1: LO 1V/div. 500μs/div.
㉓ CH2: RO



㉔ CH1: COMPO 200mV/div. 10μs/div.
[White 100% output]



3.20 PU UNIT(REFERENCE)

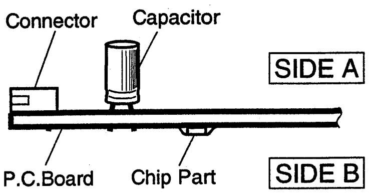

Iop78
78LD
28
CR1/SHF
LDGND
GND
GND
GND
GND
LD
APC
GND
Vcc
Ishf
Vshf:4V
L4
C8
L1
27
SHORT
ROUND
C4
78LD
65LD
15
17
LDGND
16
L3
C5
R1
Iop65
65LD
30
S1/SHORT SW
LDGND
29
65MD
12
UP
TopView
MDA
VR2/65Rmd
65MDG
13
Im/2
78MD
10
L2
Im
Vmda
R2
VR1/78Rmd
78MDG
11
Im/2
MDA
MDC
MDC
09
9
8
B1
1
B1
20
B2
2
B2
19
RF-
3
RF-
18
10
A
11
SW
B3
4
B3
17
12
Vcc
C2
13
GND
RF+
5
RF+
16
B4
6
B4
15
14
Vr
C
7
C
14
C1
Vref:2.2V
25
GND
24
TH1
C3
TEMP
26
Vcc
23
SW
22
A
21
LCD Module
COM
05
SEG3
08
SEG2
07
SEG1
06
T+
04
T-
03
F-
02
F+
01

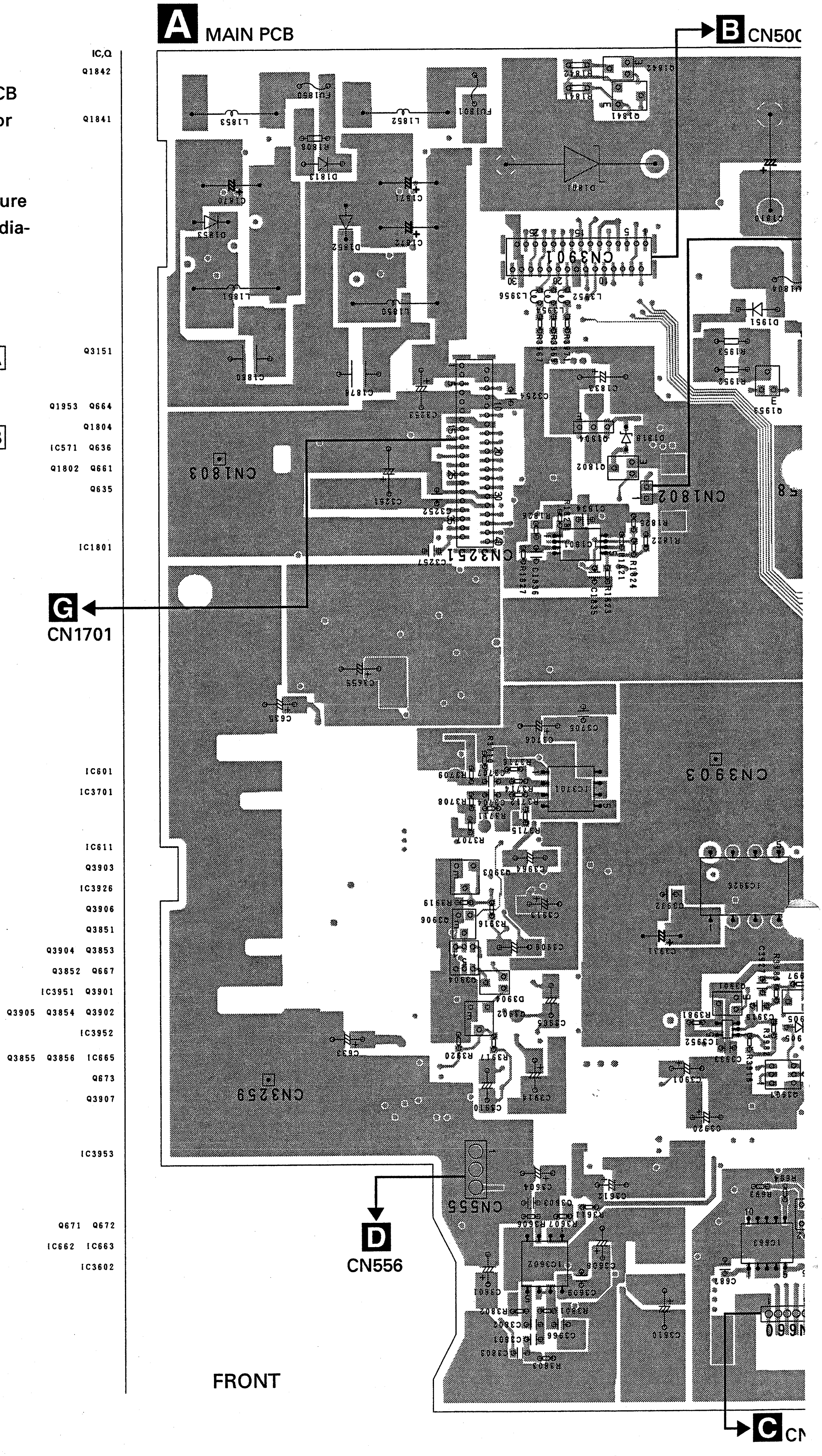
4. PCB CONNECTION DIAGRAM

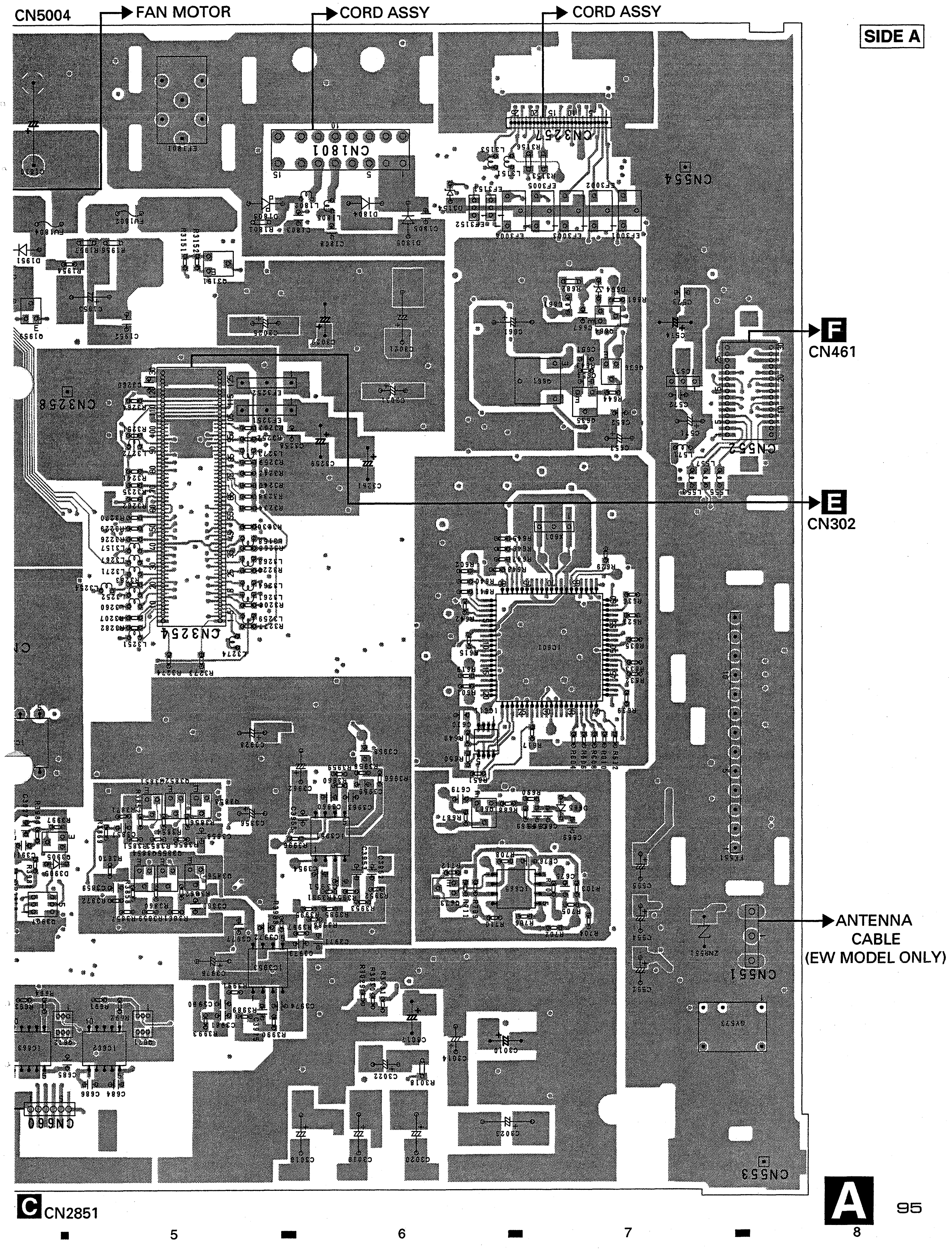
4.1 MAIN PCB

NOTE FOR PCB DIAGRAMS

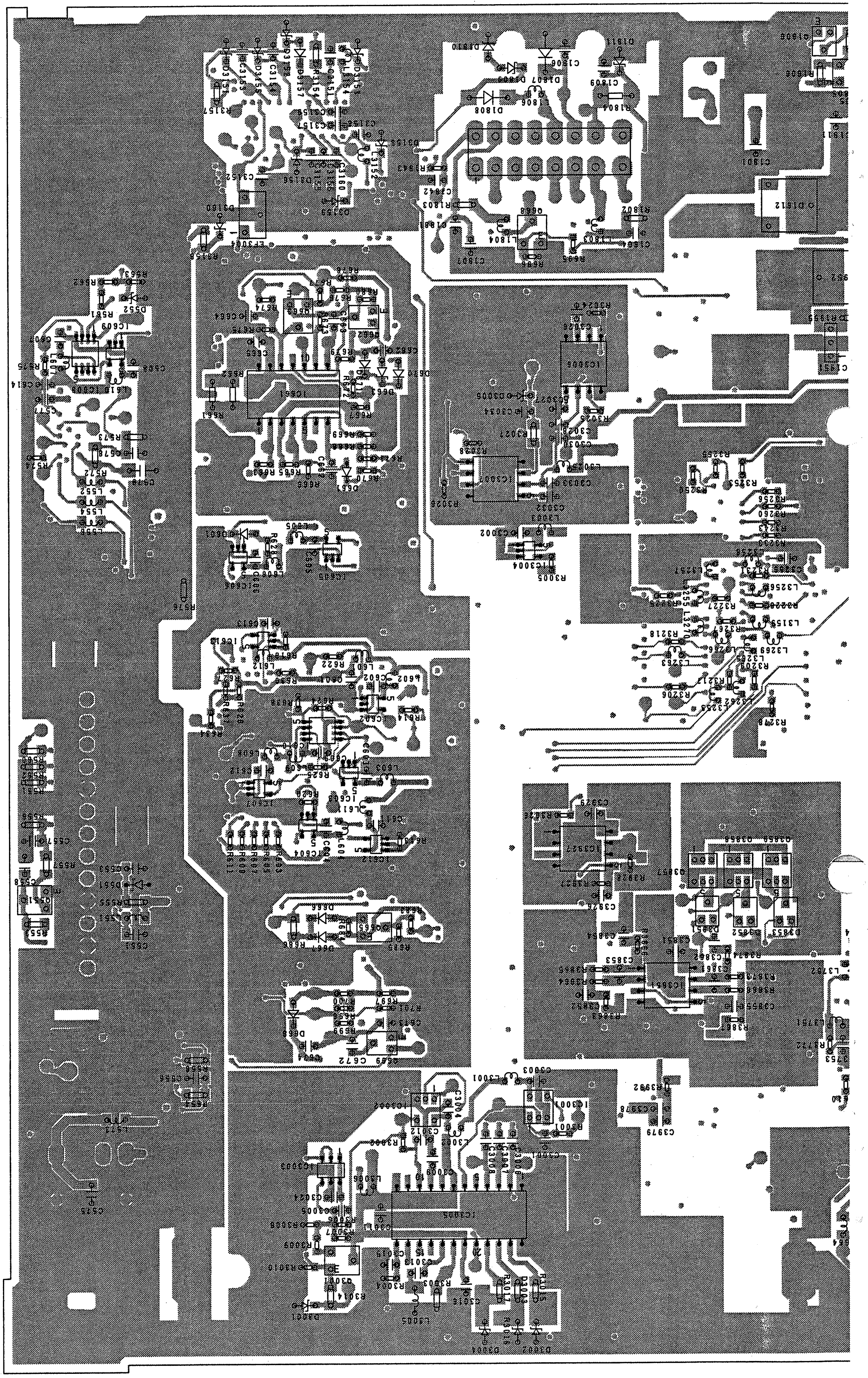
1. The parts mounted on this PCB include all necessary parts for several destination.
   For further information for respective destinations, be sure to check with the schematic diagram.
2. Viewpoint of PCB diagrams


Connector
Capacitor
SIDE A
P.C.Board
Chip Part
SIDE B

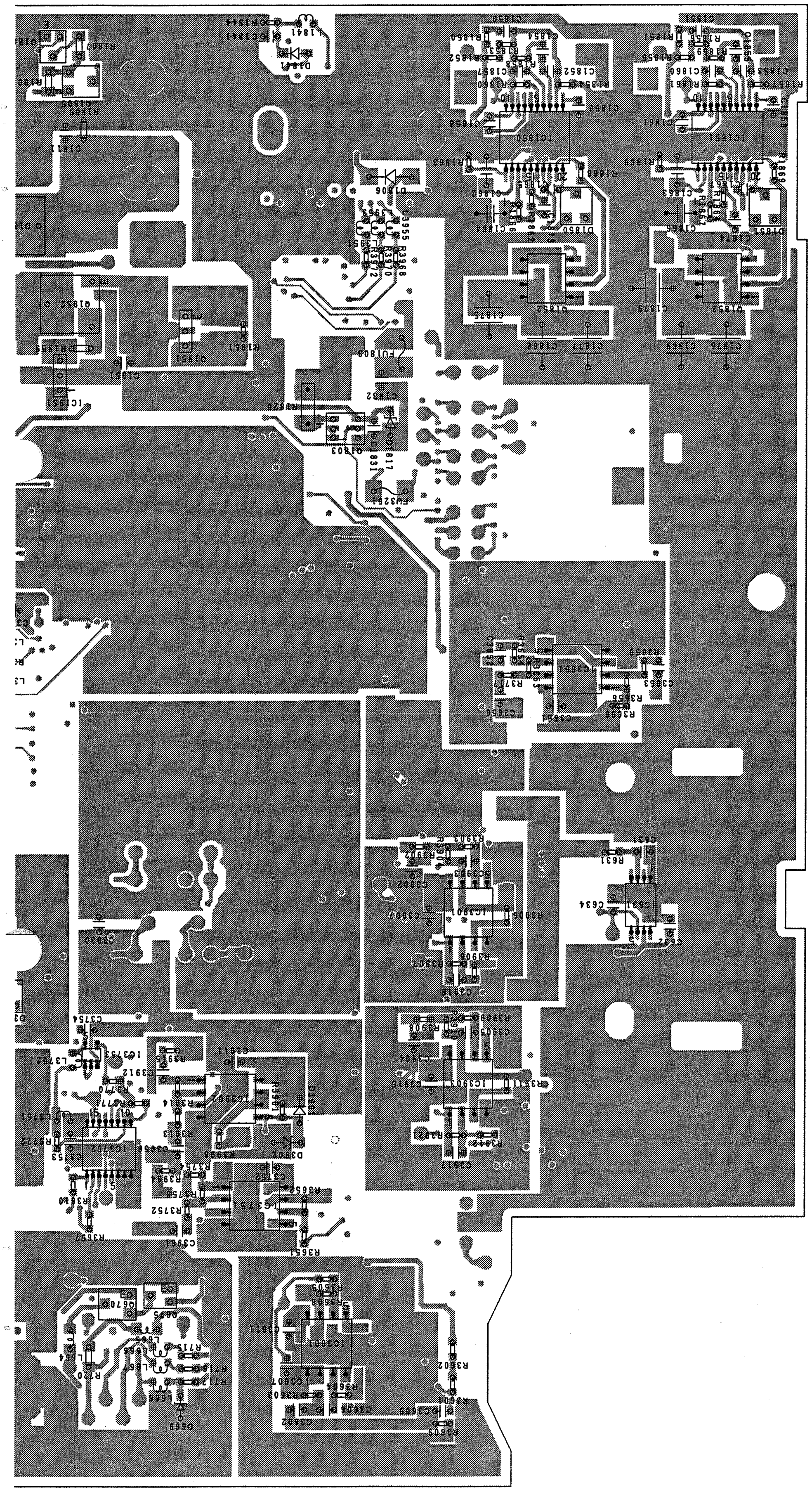

A
MAIN PCB
B CN50
IC,Q
Q1842
Q1841
Q3151
Q1953 Q664
Q1804
IC571 Q636
Q1802 Q661
Q635
IC1801
G
CN1701
IC601
IC3701
IC611
Q3903
IC3926
Q3906
Q3851
Q3904 Q3853
Q3852 Q667
IC3951 Q3901
Q3905 Q3854 Q3902
IC3952
Q3855 Q3856 IC665
Q673
Q3907
IC3953
Q671 Q672
IC662 IC663
IC3602
CN3901
CN1803
CN1802
CN3251
CN3903
CN3259
CN555
D
CN556
FRONT
C CN


CN5004
FAN MOTOR
CORD ASSY
CORD ASSY
SIDE A
CN1801
CN3257
CN554
F
CN461
CN3258
CN552
E
CN302
CN3254
IC601
ANTENNA
CABLE
(EW MODEL ONLY)
CN551
CN660
CN553
C
CN2851

A MAIN PCB



SIDE B



IC,Q

Q1806

Q1805

IC1851 IC1850

Q668

Q1952 Q1853 Q1852

Q663 IC609

Q1951 Q662

IC3006

IC1951 IC608

IC661

Q1803

IC3007

IC3004 IC605

IC606

IC3651

IC613

IC602

IC610

IC603 IC607

IC631 IC3901

Q3859 Q3858

IC3927 IC604 IC612

Q3857

Q551

Q665

IC3753

IC3851 IC3903

IC3902

IC3752

Q669

IC3002 IC3751

IC3001

IC3003

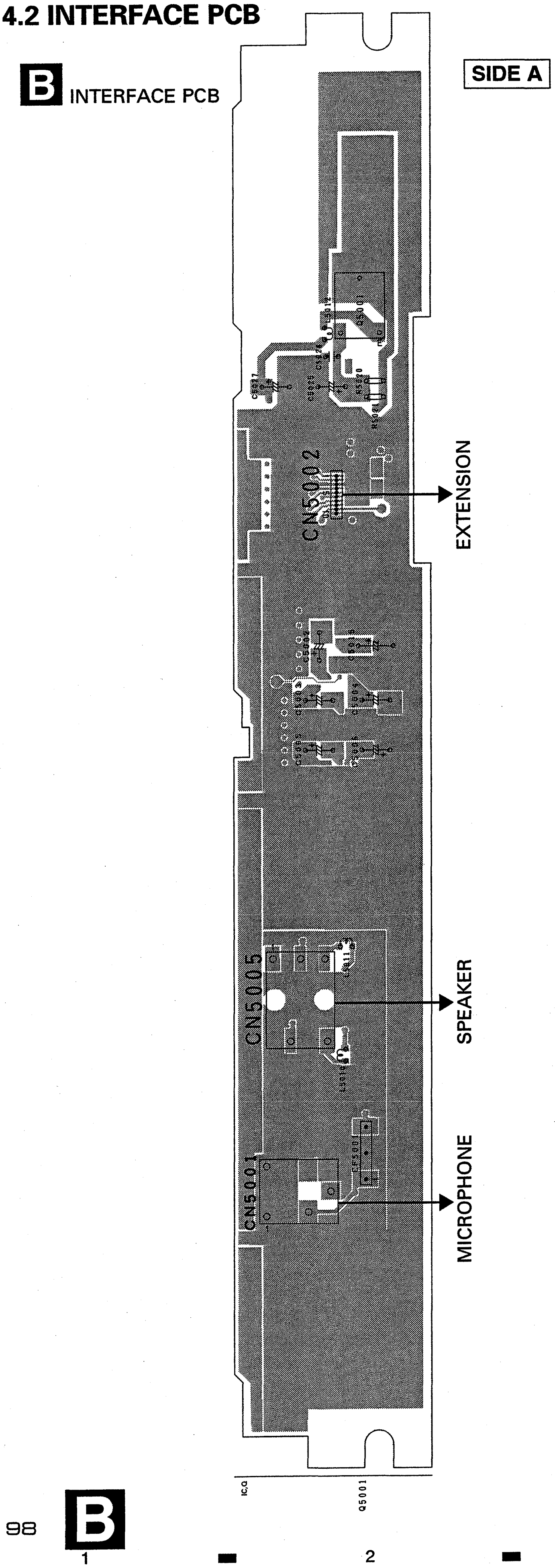
Q670 Q675

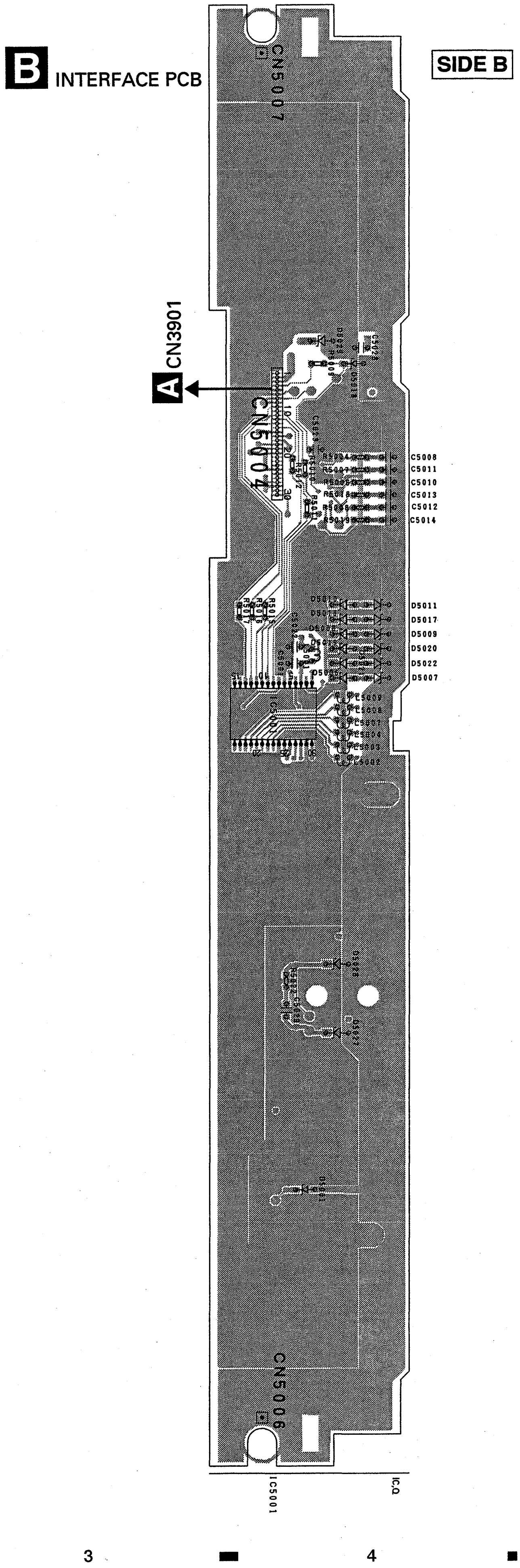
IC3005

IC3601

Q3001

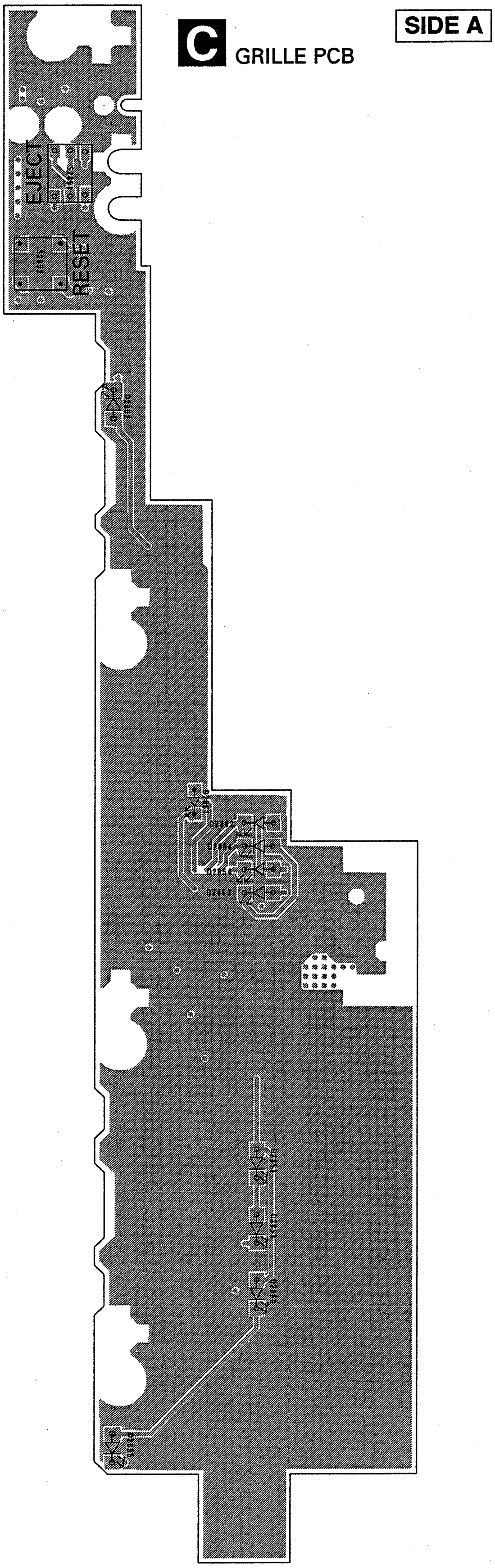
4.2 INTERFACE PCB

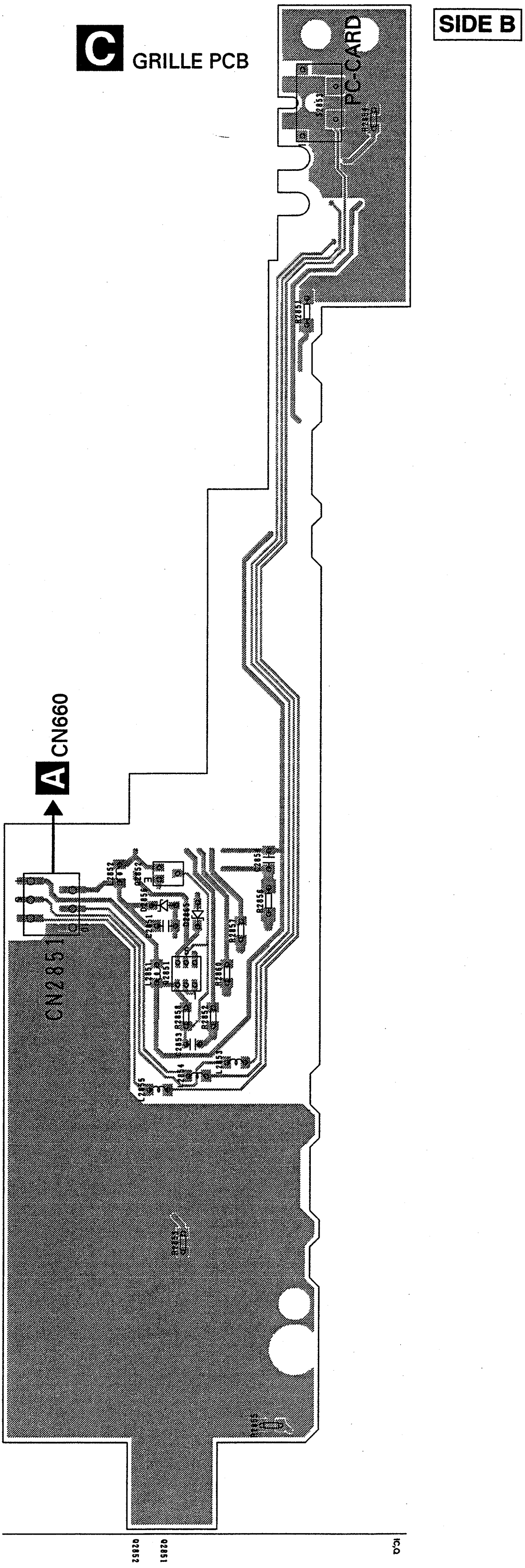

B INTERFACE PCB
SIDE A
CN5002
EXTENSION
CN5005
SPEAKER
CN5001
MICROPHONE
Q5001
IC,Q
Q5001


B INTERFACE PCB
SIDE B
CN5007
A CN3901
CN5004
C5008
C5011
C5010
C5013
C5012
C5014
D5011
D5017
D5009
D5020
D5022
D5007
IC5001
CN5006
IC5001
IC,Q

A
B
C
D

4.3 GRILLE PCB

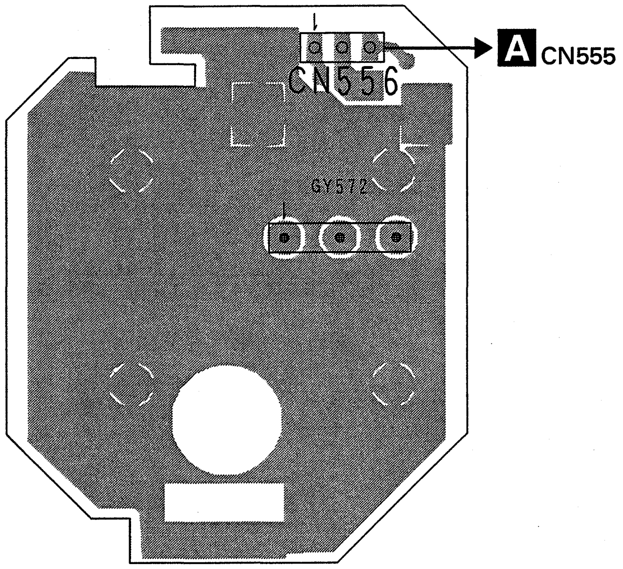

C GRILLE PCB
SIDE A
EJECT
RESET


C GRILLE PCB
SIDE B
PC-CARD
A CN660
CN2851
Q2852
Q2851

4.4 G-SENSOR PCB

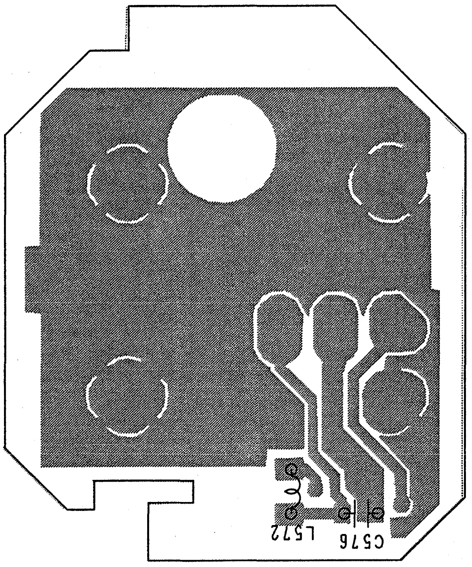
SIDE A

D G-SENSOR PCB


CN556
GY572
A CN555

SIDE B

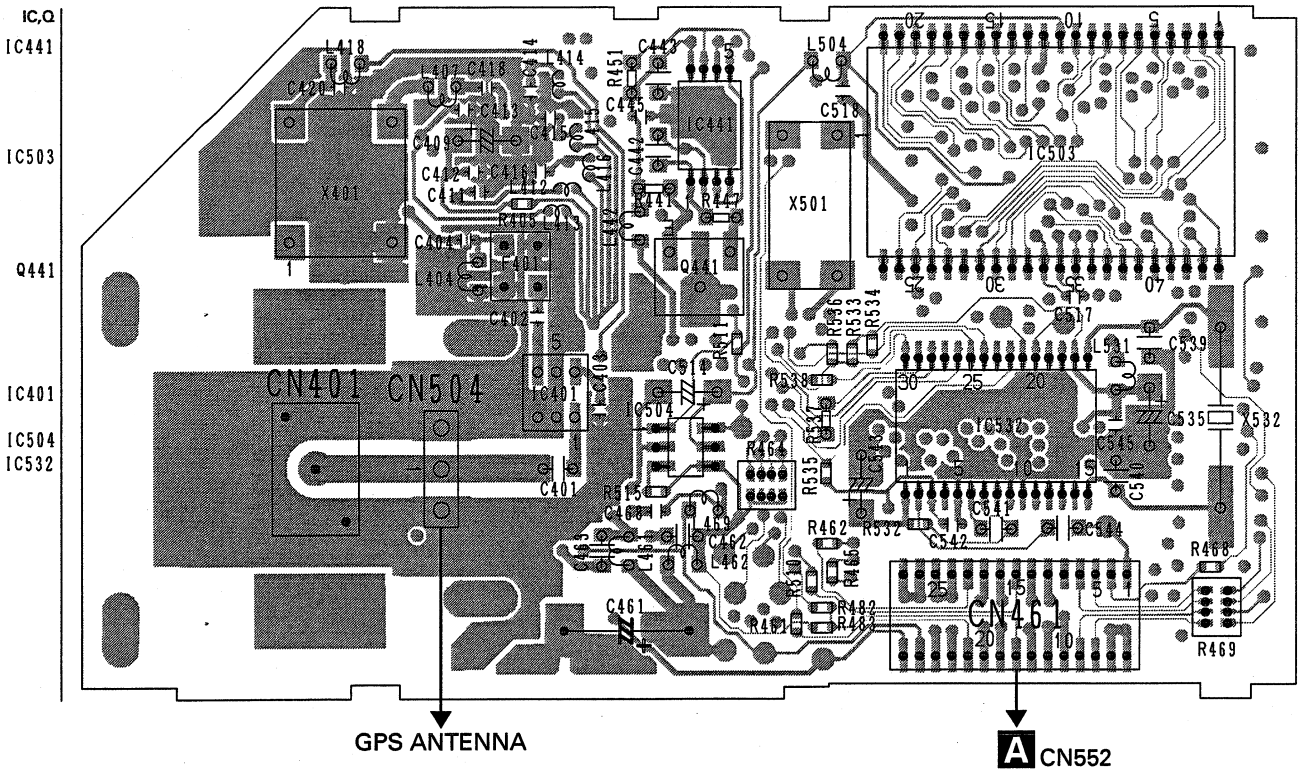
D G-SENSOR PCB



4.5 GPS UNIT

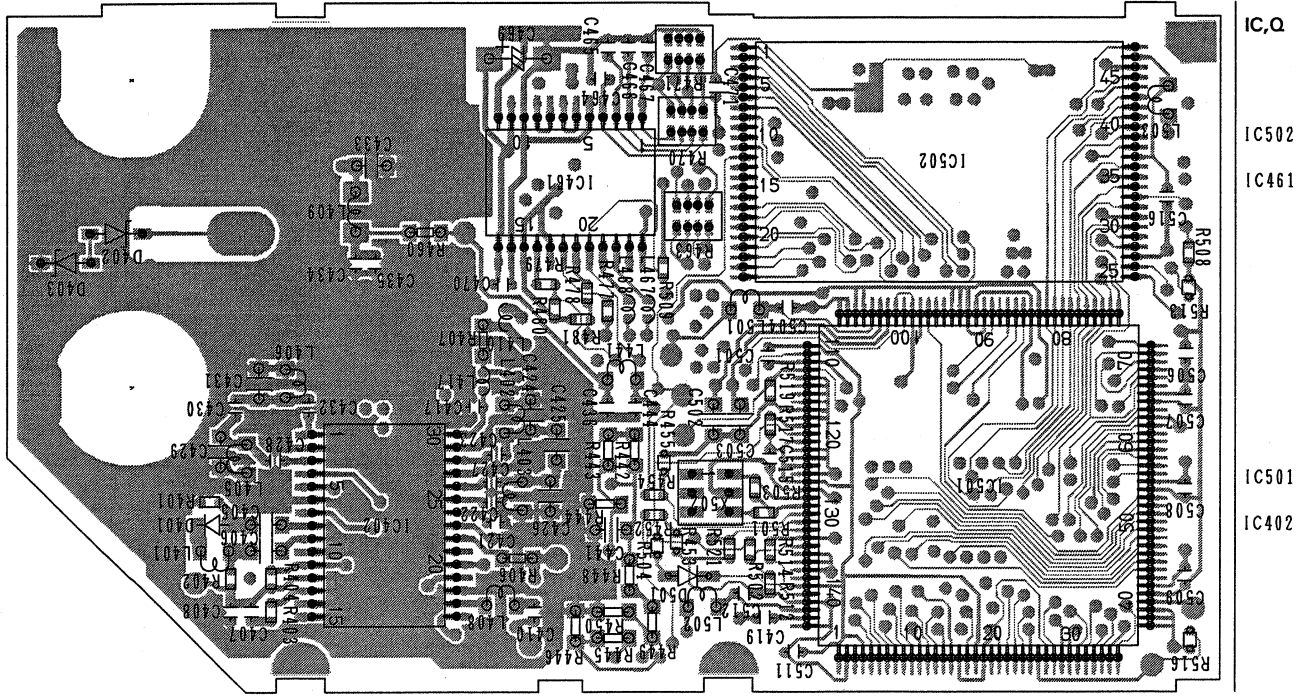
SIDE A

F GPS UNIT


IC,Q
IC441
IC503
Q441
IC401
IC504
IC532
X401
X501
CN401
CN504
IC441
IC503
IC401
IC504
IC532
Q441
X532
CN461
R469
GPS ANTENNA
A CN552

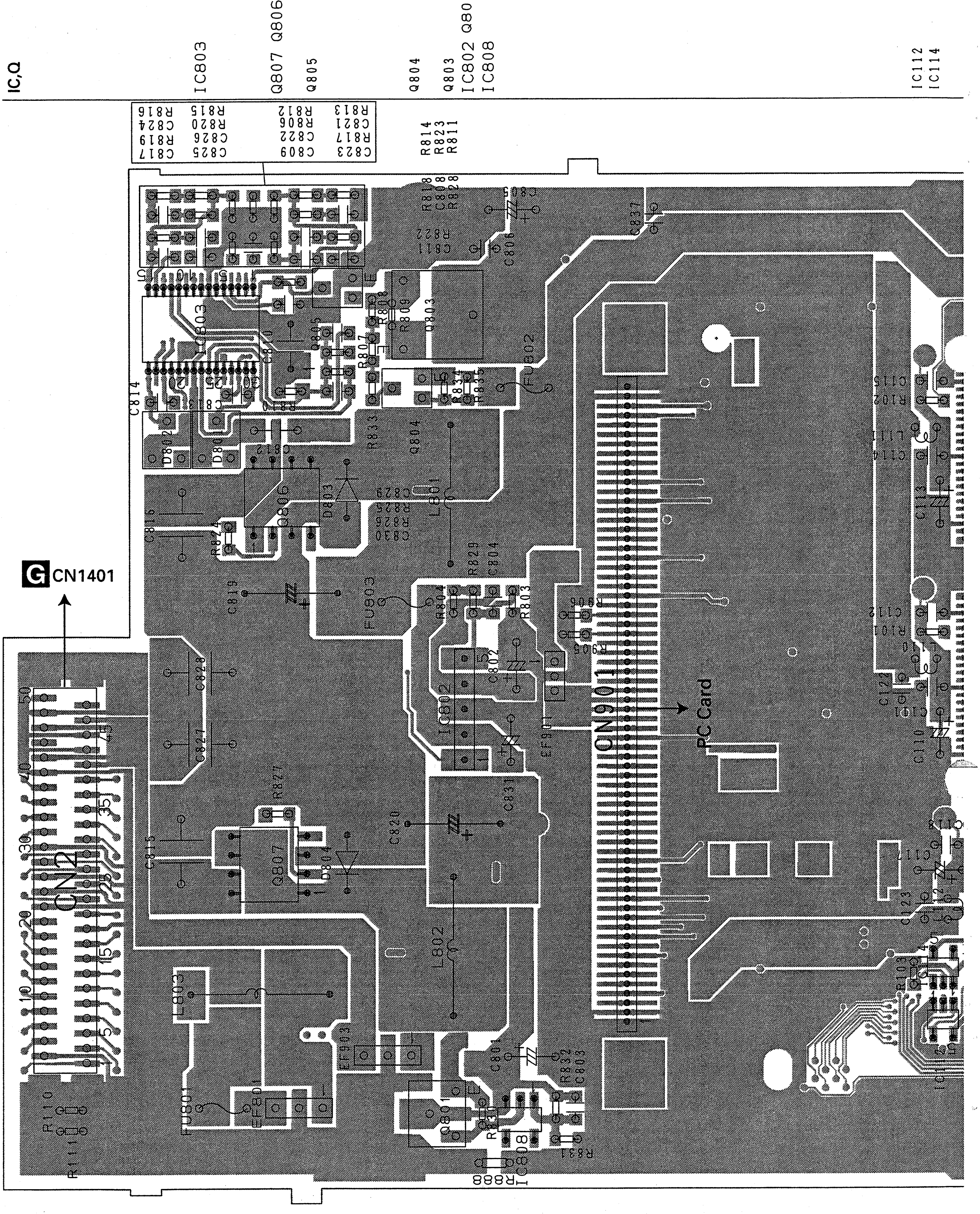
SIDE B

F GPS UNIT

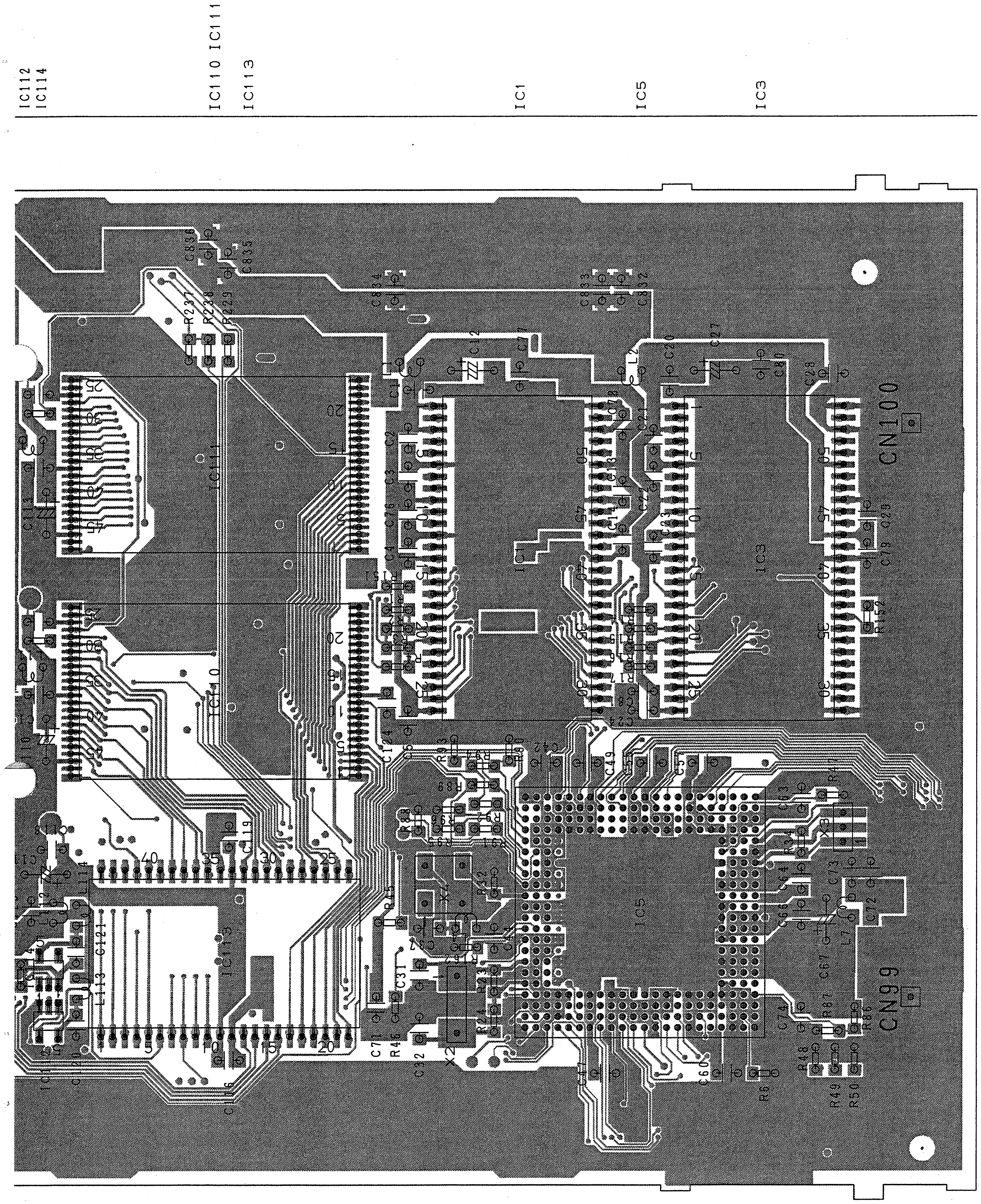

IC,Q
IC502
IC461
IC501
IC402
IC502
IC461
IC402
IC501

4.6 CC UNIT

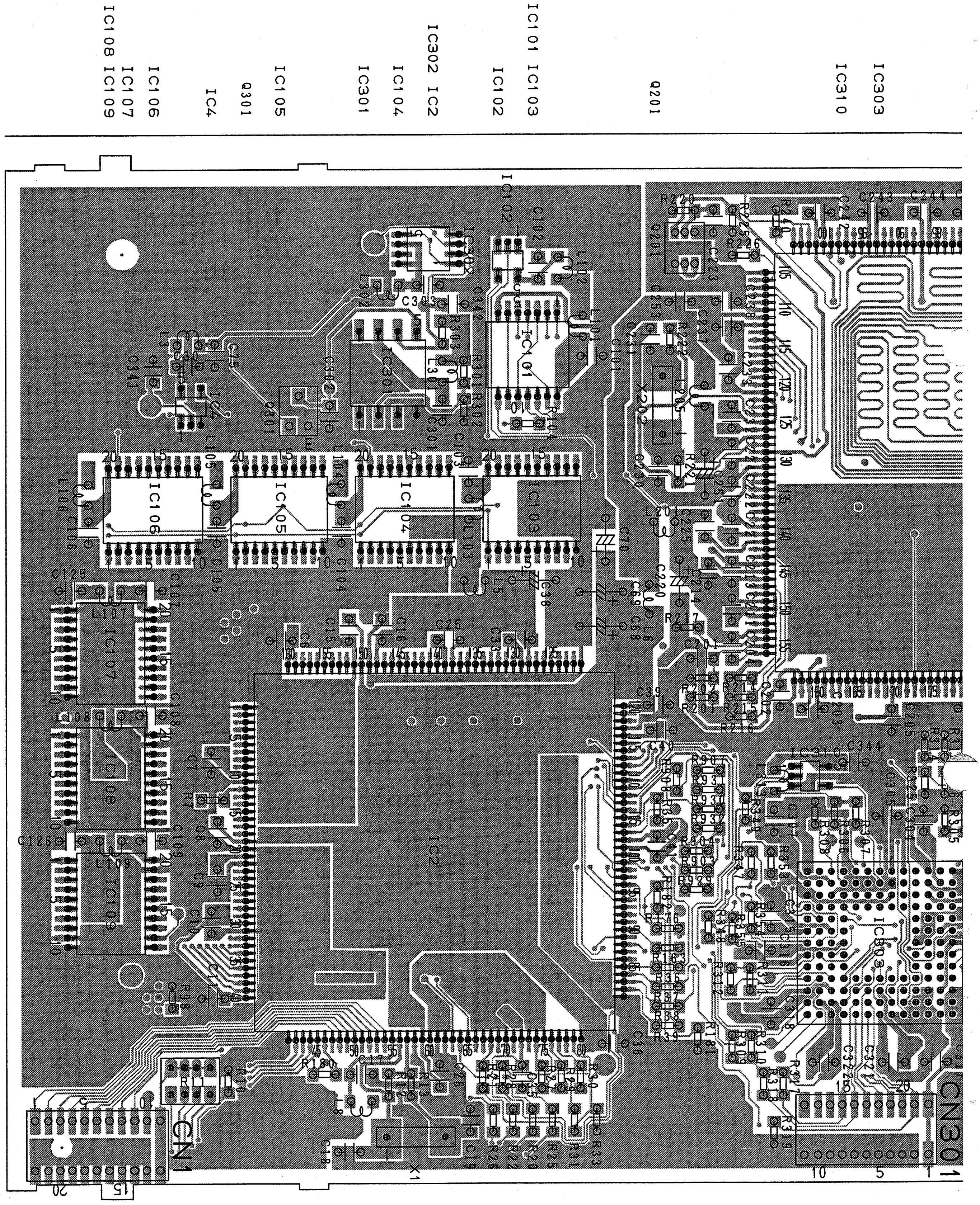
E CC UNIT


IC,Q
IC803
Q807 Q806
Q805
Q804
Q803
IC802 Q801
IC808
IC112
IC114
R814
R823
R811
G CN1401
CN2
CN901
PC Card
Q806
Q807
L801
L802
L803
FU801
FU802
FU803
EF801
EF901
EF903
D803
D814
C820
C828
C827
C819
C816
C815
C814
C801
C802
C811
R827
R829
R832
R831
R803
R804
R833
R888
R110
R111
R103
IC808
Q801
IC802
C113
C110
C123
C837

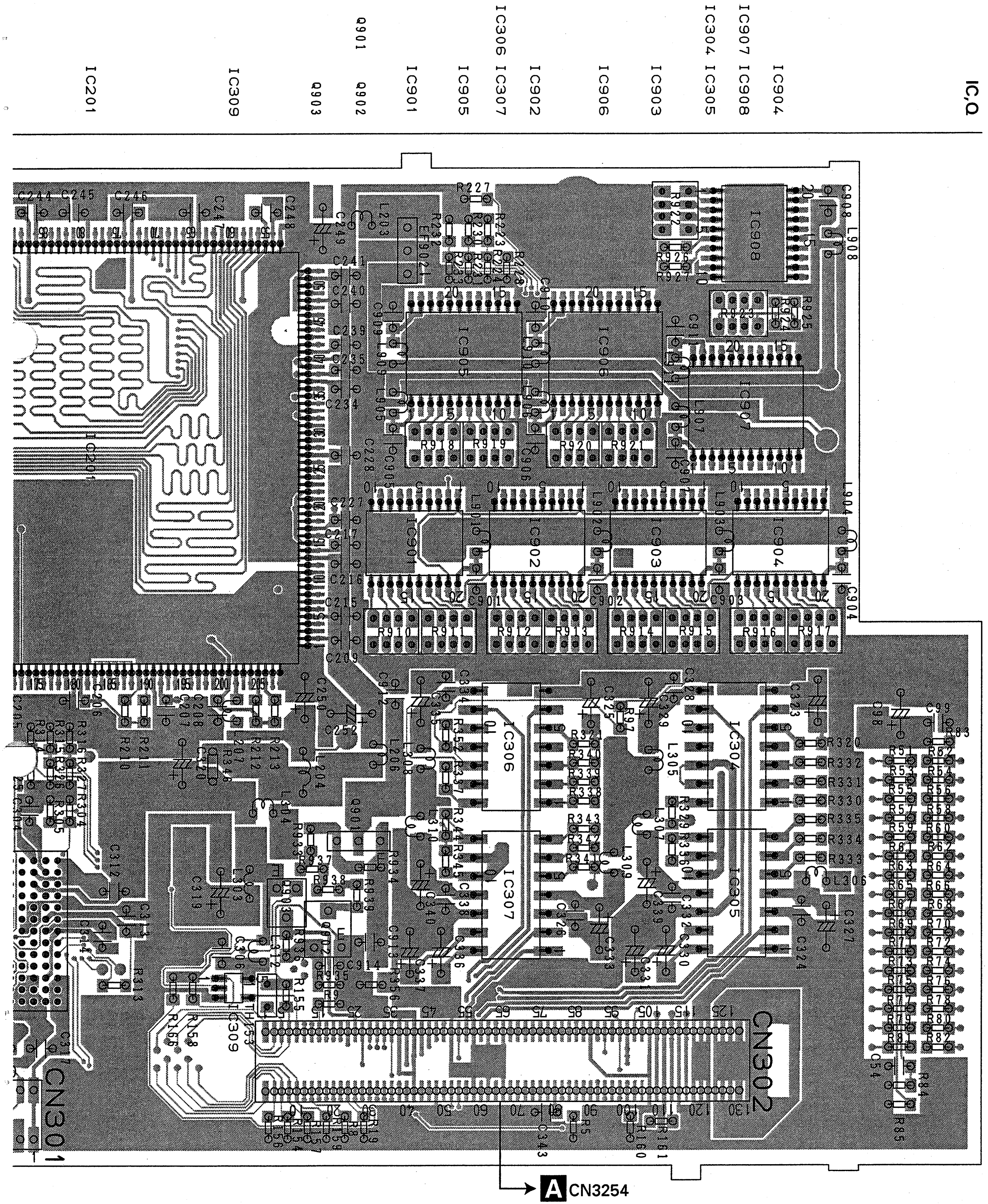
SIDE A


IC112
IC114
IC110 IC111
IC113
IC1
IC5
IC3
CN100
CN99
IC111
IC110
IC113
X1
X2
X3
L1
L2
L7
L113
C830
C833
C832
C834
R237
R238
R429

E CC UNIT


A
B
C
D
IC108 IC109
IC107
IC106
IC4
Q301
IC105
IC301
IC104
IC302 IC2
IC102
IC101 IC103
Q201
IC310
IC303
IC101
IC102
IC103
IC104
IC105
IC106
IC107
IC108
IC109
IC2
IC301
IC303
Q201
Q301
X1
X202
CN1
CN301
C341
L106
L107
L108
L109
L5
L8
L101
L102
R98
R180
R220
R226
R240
C125
C126
C243
C244

SIDE B


IC,Q
IC201
IC309
Q903
Q902
Q901
IC901
IC905
IC306 IC307
IC902
IC906
IC903
IC304 IC305
IC907 IC908
IC904
IC201
IC905
IC906
IC907
IC908
IC901
IC902
IC903
IC904
IC306
IC307
IC304
IC305
IC309
Q901
CN301
CN302
A CN3254

4.7 DVD CORE UNIT V

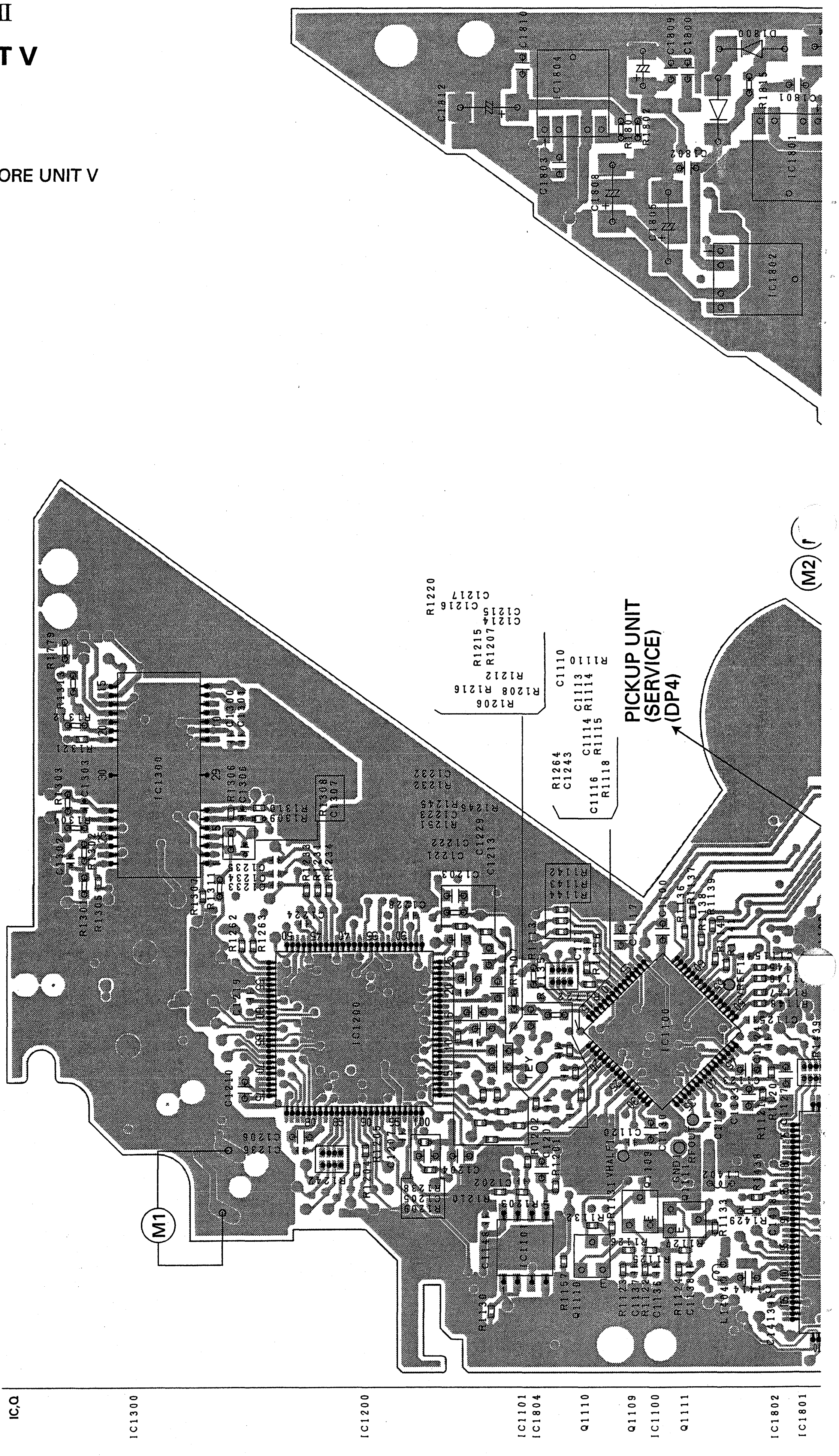
A

G DVD CORE UNIT V

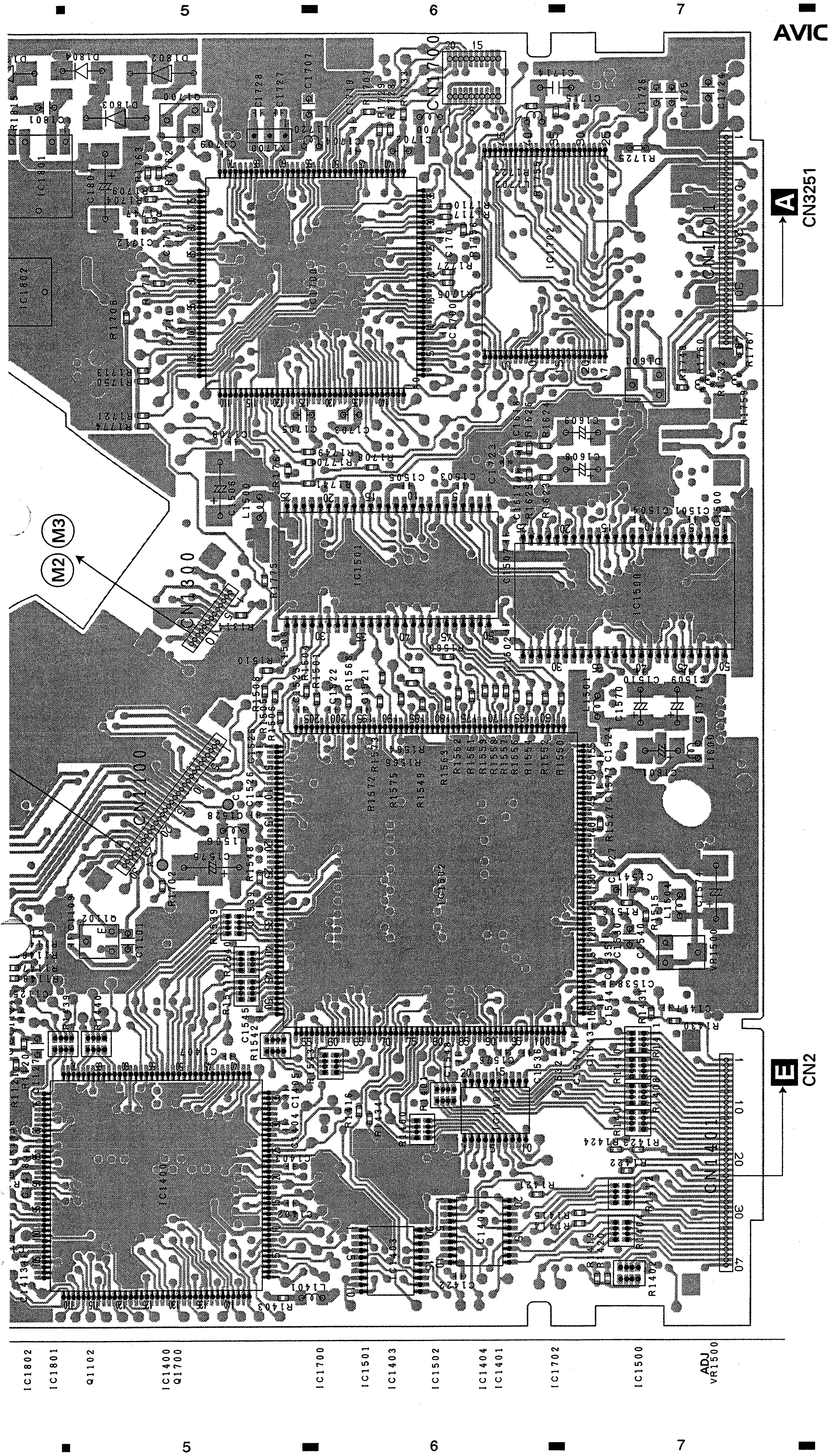
B

C

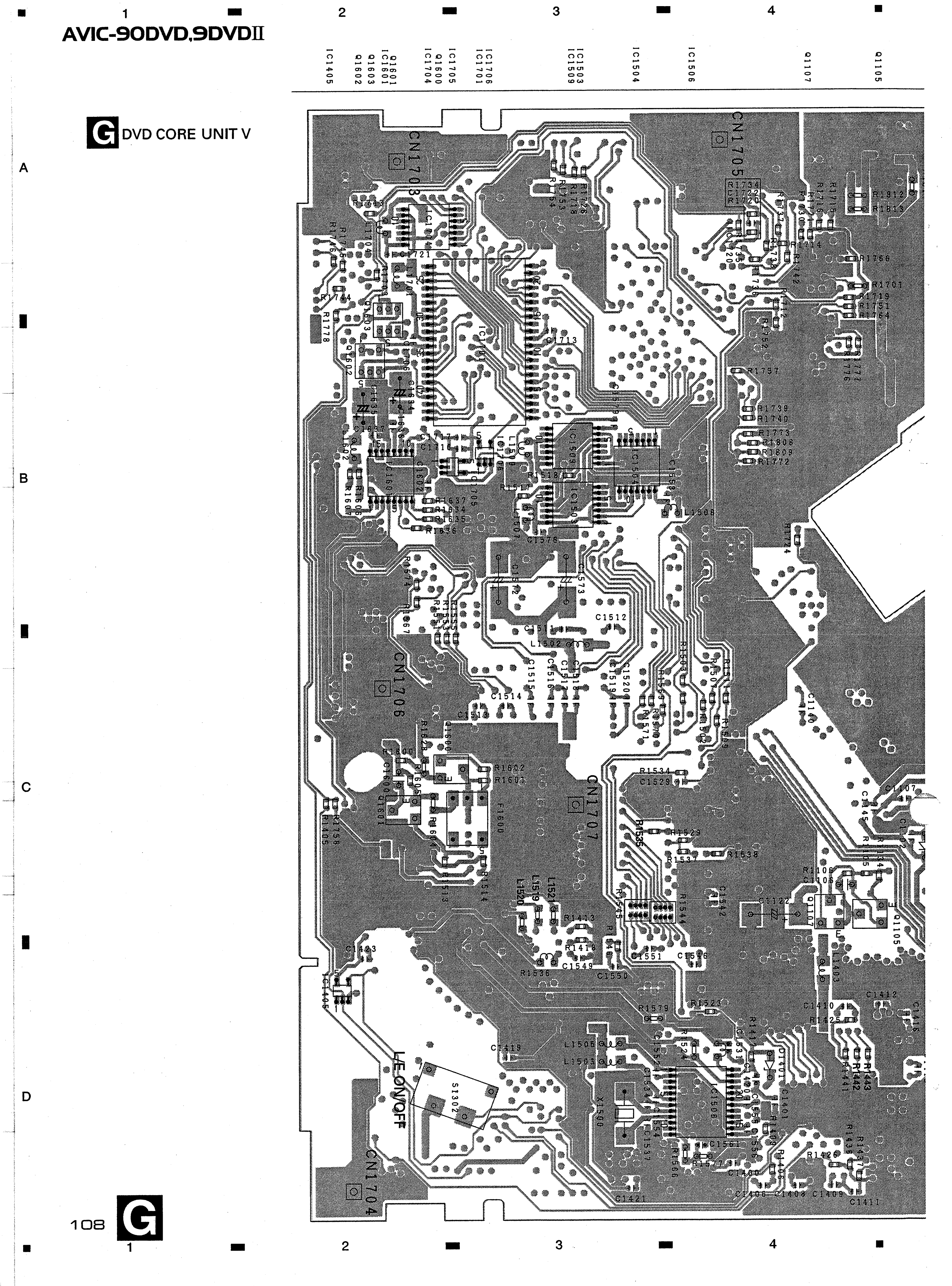
D


PICKUP UNIT
(SERVICE)
(DP4)
M1
M2
IC1300
IC1200
IC1100
IC1110
IC1804
IC1802
IC1801
IC,Q
IC1300
IC1200
IC1101
IC1804
Q1110
Q1109
IC1100
Q1111
IC1802
IC1801

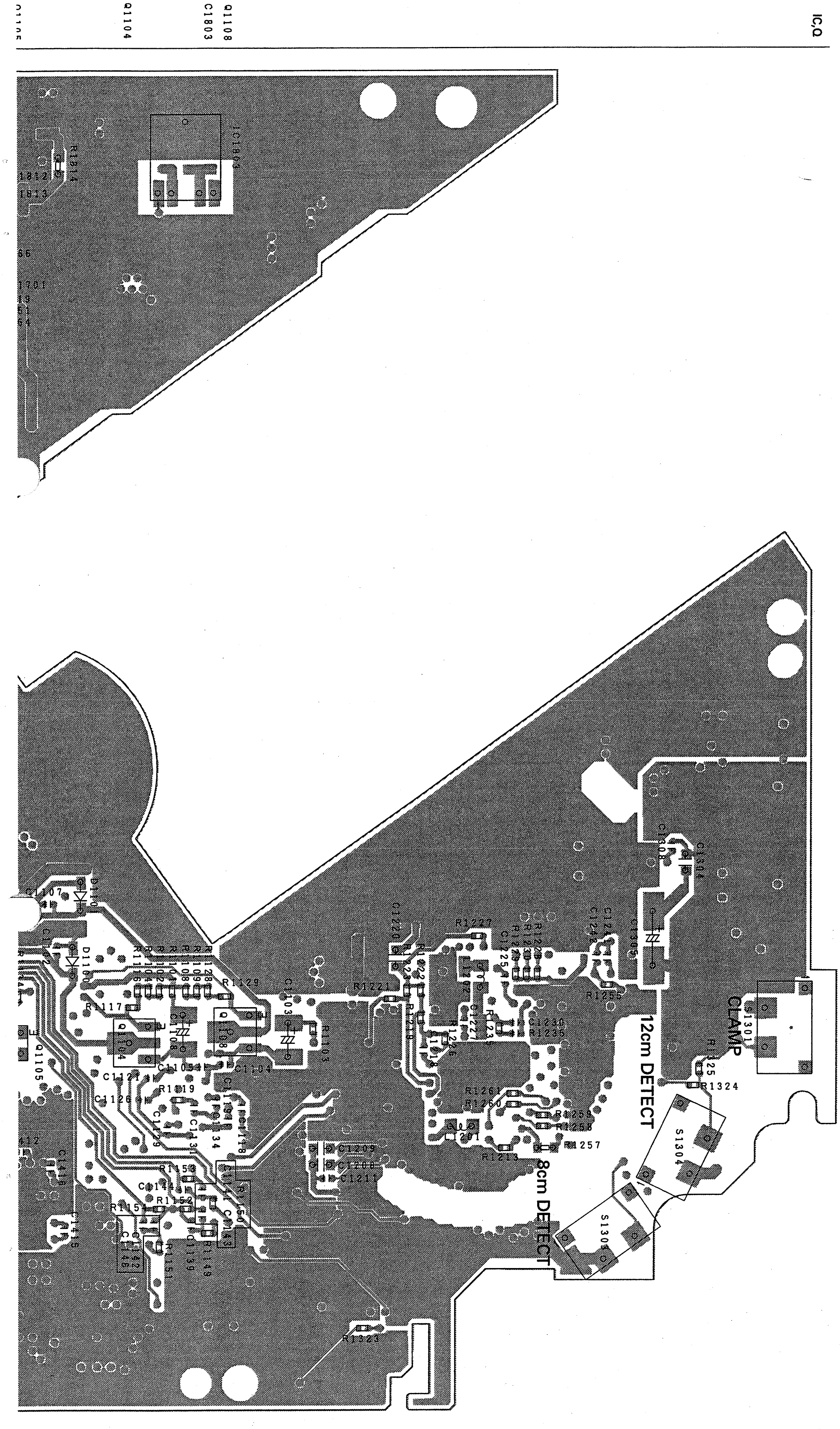
SIDE A


5
6
7
8
A
CN3251
E
CN2
M2
M3
CN1300
CN1100
CN1701
CN1401
IC1802
IC1801
Q1102
IC1400
Q1700
IC1700
IC1501
IC1403
IC1502
IC1404
IC1401
IC1702
IC1500
ADJ
VR1500

G DVD CORE UNIT V


1
2
3
4
A
B
C
D
IC1405
Q1601
IC1601
Q1603
Q1602
IC1705
Q1600
IC1704
IC1706
IC1701
IC1503
IC1509
IC1504
IC1506
Q1107
Q1105
CN1703
CN1705
CN1706
CN1707
CN1704
IC1701
IC1704
IC1601
IC1602
IC1509
IC1504
IC1503
IC1506
IC1405
Q1601
Q1107
Q1105
X1500
S1302
L/E ON/OFF
F1600
C1512
C1514
C1529
C1549
C1550
C1551
C1419
C1421
C1423
R1534
R1535
R1536
R1537
R1538
R1579
R1757
R1778
R1744

SIDE B


Q1104
IC1803
Q1108
IC,Q
CLAMP
12cm DETECT
8cm DETECT
S1301
S1304
S1303
R1227
R1221
R1255
R1324
R1257
R1213
C1209
C1208
C1211
C1107
R1117
C1105
C1104
R1119
R1153
R1152
R1154
R1151
R1323
Q1105

5. ELECTRICAL PARTS LIST

NOTE:

- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

Chip Resistor

RS1/○S○○○J,RS1/○○S○○○J

Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

E Unit Number : CWM8391(AVIC-90DVD/UC)
: CWM8390(AVIC-9DVDII/EW)
Unit Name : CC Unit

MISCELLANEOUS

=====Circuit Symbol and No.		===Part Name	Part No.
IC	1	IC	K4S281632D-TL1L
IC	2	IC	UPD705103GM-180
IC	3	IC	M2V2840ATP-7L
IC	4	IC	TC7SZ08FU
IC	5	IC	PD6336B
IC	101	IC	TC74LCX08FT
IC	102	IC	TC7SH04FU
IC	103	IC	TC74LCX245FT
IC	104	IC	TC74LCX245FT
IC	105	IC	TC74LCX245FT
IC	106	IC	TC74LCX245FT
IC	107	IC	TC74LCX541FT
IC	108	IC	TC74LCX541FT
IC	109	IC	TC74LCX541FT
IC	110	IC (AVIC-90DVD/UC)	PD6403B
IC	110	IC (AVIC-9DVDII/EW)	PD6401B
IC	111	IC (AVIC-90DVD/UC)	PD6404B
IC	111	IC (AVIC-9DVDII/EW)	PD6402B
IC	112	IC	TC7SH00FU
IC	113	IC	M5M5V216ATP-70HI
IC	114	IC	TC7SH08FU
IC	201	IC	MB86291APFVS-G-DL
IC	301	IC	M51957BFP
IC	302	IC	TC7WH08FU
IC	304	IC	PCM1725U
IC	305	IC	PCM1801U
IC	309	IC	TC7SH08FU
IC	802	IC	LP3965ES-ADJ
IC	803	IC	TPS5102IDBT
IC	901	IC	TC74VHCT541AFT
IC	902	IC	TC74VHCT541AFT
IC	903	IC	TC74VHCT541AFT
IC	904	IC	TC74VHCT541AFT
IC	905	IC	TC74LVX4245FS
IC	906	IC	TC74LVX4245FS
IC	907	IC	TC74LVX4245FS
IC	908	IC	TC74VHC541FT
Q	201	Transistor	UMD2N
Q	301	Transistor	DTC114EU
Q	803	Transistor	2SA1834F5
Q	804	Transistor	2SC4081
Q	805	Transistor	DTC114EU
Q	806	FET	RK4936
Q	807	FET	RK4936
Q	901	Transistor	2SA1797
Q	902	Transistor	2SC2712
Q	903	Transistor	DTA114EU
D	801	Diode	RB400D
D	802	Diode	RB400D
D	803	Diode	RB060L-40
D	804	Diode	RB060L-40
L	1	Inductor	CTF1558
L	2	Inductor	CTF1558
L	3	Inductor	CTF1410
L	5	Inductor	CTF1556
L	6	Inductor	CTF1295
L	7	Inductor	CTF1558
L	8	Inductor	CTF1556
L	101	Inductor	CTF1557
L	102	Inductor	CTF1557
L	103	Inductor	CTF1557
L	104	Inductor	CTF1557
L	105	Inductor	CTF1557
L	106	Inductor	CTF1557
L	107	Inductor	CTF1557
L	108	Inductor	CTF1557
L	109	Inductor	CTF1557
L	110	Inductor	CTF1556
L	111	Inductor	CTF1556
L	112	Inductor	CTF1556
L	113	Inductor	CTF1557
L	114	Inductor	CTF1557
L	201	Inductor	CTF1556
L	203	Inductor	CTF1556
L	204	Inductor	CTF1488
L	205	Inductor	CTF1556
L	206	Inductor	CTF1556
L	207	Inductor	CTF1379
L	301	Inductor	CTF1557
L	302	Inductor	CTF1557
L	305	Inductor	CTF1556
L	306	Inductor	CTF1556
L	307	Inductor	CTF1556
L	312	Inductor	CTF1410
L	801	Inductor	CTH1257
L	802	Inductor	CTH1257
L	803	Inductor	CTH1253
L	901	Inductor	CTF1410
L	902	Inductor	CTF1410
L	903	Inductor	CTF1410
L	904	Inductor	CTF1410
L	905	Inductor	CTF1410
L	906	Inductor	CTF1410
L	907	Inductor	CTF1410
L	908	Inductor	CTF1410

=====Circuit Symbol and No.===Part Name			Part No.
L	909	Inductor	CTF1410
L	910	Inductor	CTF1410
L	911	Inductor	CTF1410
TH	153	Thermistor	CCX1056
X	1	Radiator 30.0MHz	CSS1563
X	2	Radiator 33.0MHz	CSS1564
X	3	Radiator 33.86MHz	CSS1551
X	202	Radiator 14.31818MHz	CSS1562
FU	801	Fuse 4A	CEK1199
FU	802	Fuse 2.5A	CEK1209
FU	803	Fuse 2.5A	CEK1209
EF	801	EMI Filter	CCG1083
EF	901	EMI Filter	CCG1104
EF	902	EMI Filter	CCG1083
EF	903	EMI Filter	CCG1083

RESISTORS

=====Circuit Symbol and No.===Part Name			Part No.
R	2		RS1/16S0R0J
R	4		RS1/16S0R0J
R	5		RS1/16S473J
R	6		RS1/16S473J
R	7		RS1/16S220J
R	8		RS1/16S473J
R	9		RS1/16S473J
R	10		RS1/16S104J
R	11		RAB4C473J
R	12		RS1/16S105J
R	13		RS1/16S151J
R	15		RS1/16S0R0J
R	17		RS1/16S0R0J
R	19		RS1/16S473J
R	20		RS1/16S101J
R	21		RS1/16S101J
R	22		RS1/16S101J
R	23		RS1/16S105J
R	24		RS1/16S151J
R	25		RS1/16S101J
R	26		RS1/16S101J
R	27		RS1/16S101J
R	28		RS1/16S101J
R	29		RS1/16S101J
R	30		RS1/16S101J
R	31		RS1/16S101J
R	32		RS1/16S473J
R	33		RS1/16S473J
R	34		RS1/16S105J
R	35		RS1/16S104J
R	36		RS1/16S101J
R	37		RS1/16S101J
R	38		RS1/16S101J
R	39		RS1/16S101J
R	45		RS1/16S104J
R	46		RS1/16S104J
R	47		RS1/16S104J
R	48		RS1/16S104J
R	49		RS1/16S104J
R	50		RS1/16S104J
R	51		RS1/16S101J
R	52		RS1/16S101J
R	53		RS1/16S101J
R	54		RS1/16S101J
R	55		RS1/16S101J
R	57		RS1/16S101J
R	59		RS1/16S101J
R	60		RS1/16S101J
R	61		RS1/16S0R0J
R	62		RS1/16S101J
R	63		RS1/16S101J
R	64		RS1/16S101J
R	65		RS1/16S101J
R	66		RS1/16S101J
R	67		RS1/16S101J
R	68		RS1/16S101J
R	69		RS1/16S101J
R	70		RS1/16S101J
R	71		RS1/16S101J
R	72		RS1/16S101J
R	73		RS1/16S101J
R	74		RS1/16S101J
R	75		RS1/16S101J
R	76		RS1/16S101J
R	77		RS1/16S101J
R	78		RS1/16S101J
R	79		RS1/16S101J
R	80		RS1/16S101J
R	81		RS1/16S101J
R	82		RS1/16S101J
R	83		RS1/16S102J
R	84		RS1/16S562J
R	85		RS1/16S103J
R	87		RS1/16S104J
R	88		RS1/16S104J
R	89		RS1/16S0R0J
R	90		RS1/16S0R0J
R	93		RS1/16S153J
R	94		RS1/16S153J
R	95		RS1/16S153J
R	96		RS1/16S153J
R	97		RS1/16S473J
R	98		RS1/16S473J
R	101		RS1/16S473J
R	102		RS1/16S473J
R	103		RS1/16S473J
R	104		RS1/16S220J
R	110	(AVIC-9DVDII/EW)	RS1/16S0R0J
R	111	(AVIC-90DVD/UC)	RS1/16S0R0J
R	154		RS1/16S473J
R	155		RS1/16S473J
R	156		RS1/16S473J
R	157		RS1/16S473J
R	158		RS1/16S473J
R	159		RS1/16S473J
R	160		RS1/16S473J
R	161		RS1/16S103J
R	162		RS1/16S473J
R	163		RS1/16S560J
R	166		RS1/16S473J
R	176		RS1/16S0R0J
R	180		RS1/16S220J
R	181		RS1/16S473J
R	201		RN1/16SE1502D
R	202		RN1/16SE1202D
R	210		RS1/16S104J
R	211		RS1/16S104J
R	212		RS1/16S104J
R	213		RS1/16S104J
R	217		RS1/16S272J
R	220		RS1/16S223J
R	221		RS1/16S105J
R	222		RS1/16S151J
R	224		RS1/16S0R0J
R	225		RS1/16S104J

=====Circuit Symbol and No.===Part Name		Part No.
R	226	RS1/16S104J
R	227	RS1/16S104J
R	228	RS1/16S104J
R	229	RS1/16S560J
R	230	RS1/16S104J
R	232	RS1/16S104J
R	237	RS1/16S104J
R	238	RS1/16S330J
R	240	RS1/16S104J
R	301	RS1/16S123J
R	302	RS1/16S103J
R	303	RS1/16S473J
R	320	RS1/16S201J
R	329	RS1/16S221J
R	330	RS1/16S221J
R	331	RS1/16S221J
R	332	RS1/16S221J
R	333	RS1/16S221J
R	334	RS1/16S221J
R	335	RS1/16S221J
R	336	RS1/16S221J
R	349	RS1/16S473J
R	803	RN1/16SE1002D
R	804	RN1/16SE3901D
R	806	RS1/16S101J
R	807	RS1/16S330J
R	808	RS1/16S330J
R	809	RS1/16S102J
R	810	RS1/16S100J
R	811	RN1/16SE1001D
R	812	RN1/16SE1501D
R	813	RN1/16SE3300D
R	814	RN1/16SE1001D
R	815	RN1/16SE3001D
R	816	RN1/16SE3300D
R	817	RS1/16S332J
R	818	RS1/16S473J
R	819	RS1/16S102J
R	820	RS1/16S101J
R	822	RS1/16S473J
R	823	RS1/16S104J
R	824	RS1/16S150J
R	825	RS1/16S224J
R	826	RS1/16S224J
R	827	RS1/16S150J
R	828	RS1/16S104J
R	829	RN1/16SE6801D
R	833	RS1/16S330J
R	834	RS1/16S102J
R	835	RS1/16S392J
R	903	RS1/16S101J
R	904	RS1/16S101J
R	905	RS1/16S101J
R	906	RS1/16S101J
R	907	RS1/16S101J
R	908	RS1/16S101J
R	910	RAB4C101J
R	911	RAB4C101J
R	912	RAB4C101J
R	913	RAB4C101J
R	914	RAB4C101J
R	915	RAB4C101J
R	916	RAB4C101J
R	917	RAB4C101J
R	918	RAB4C101J

=====Circuit Symbol and No.===Part Name		Part No.
R	919	RAB4C101J
R	920	RAB4C101J
R	921	RAB4C101J
R	922	RAB4C101J
R	923	RAB4C473J
R	924	RS1/16S473J
R	925	RS1/16S473J
R	926	RS1/16S101J
R	927	RS1/16S101J
R	929	RS1/16S104J
R	930	RS1/16S104J
R	931	RS1/16S104J
R	932	RS1/16S104J
R	933	RS1/16S270J
R	934	RS1/16S103J
R	935	RS1/16S472J
R	936	RS1/16S103J
R	937	RS1/16S270J
R	938	RS1/16S270J
R	939	RS1/16S270J

CAPACITORS

C	1	CKSRYB104K16
C	2	CKSRYB104K16
C	3	CKSRYB104K16
C	4	CKSRYB104K16
C	5	CKSRYB104K16
C	6	CKSRYB104K16
C	7	CKSRYB104K16
C	8	CKSRYB104K16
C	9	CKSRYB104K16
C	10	CKSRYB104K16
C	11	CKSRYB104K16
C	12	CSZSQ100M6R3
C	13	CKSRYB104K16
C	14	CKSRYB104K16
C	15	CKSRYB104K16
C	16	CKSRYB104K16
C	17	CKSRYB104K16
C	18	CCSRCH100D50
C	19	CCSRCH100D50
C	20	CKSRYB104K16
C	21	CKSRYB104K16
C	22	CKSRYB104K16
C	23	CKSRYB104K16
C	24	CKSRYB104K16
C	25	CKSRYB104K16
C	26	CKSRYB104K16
C	27	CSZSQ100M6R3
C	28	CKSRYB104K16
C	29	CKSRYB104K16
C	30	CKSRYF104Z25
C	31	CCSRCH5R0D50
C	32	CCSRCH5R0D50
C	33	CKSRYB104K16
C	35	CKSRYB104K16
C	36	CKSRYB104K16
C	38	CSZS100M10
C	39	CKSRYB104K16
C	40	CKSRYB104K16
C	41	CKSRYB104K16
C	42	CKSRYB104K16
C	44	CKSRYB104K16
C	47	CKSRYB104K16
C	49	CKSRYB104K16
C	54	CCSRCH121J50
C	55	CKSRYB104K16

=====Circuit Symbol and No.===Part Name			Part No.	=====Circuit Symbol and No.===Part Name			Part No.
C	57		CKSRYB104K16	C	228		CKSRYB104K16
C	60		CKSRYB104K16	C	230		CCSRCH150J50
C	63		CKSRYB104K16	C	231		CCSRCH120J50
C	64		CKSRYB104K16	C	232		CKSRYB104K16
C	66		CKSRYB104K16	C	233		CKSRYB104K16
C	67		CSZSQ100M6R3	C	234		CKSRYB104K16
C	68		CSZS330M6R3	C	235		CKSRYB104K16
C	69		CSZS330M6R3	C	237		CKSRYB104K16
C	70		CSZS330M6R3	C	238		CKSRYB104K16
C	71		CKSRYF103Z50	C	239		CKSRYB104K16
C	72		CKSRYF103Z50	C	240		CKSRYB104K16
C	73		CKSRYF104Z25	C	241		CKSRYB104K16
C	74		CKSRYF104Z25	C	242		CKSRYB104K16
C	75		CKSRYF104Z25	C	243		CKSRYB104K16
C	76		CKSRYB104K16	C	244		CKSRYB104K16
C	78		CKSRYB104K16	C	245		CKSRYB104K16
C	79		CKSRYB104K16	C	246		CKSRYB104K16
C	101		CKSRYB104K16	C	247		CKSRYB104K16
C	102		CKSRYB104K16	C	248		CKSRYB104K16
C	103		CKSRYB104K16	C	249		CSZS100M10
C	104		CKSRYB104K16	C	250		CSZS100M10
C	105		CKSRYB104K16	C	251		CSZS100M10
C	106		CKSRYB104K16	C	252		CSZS100M10
C	107		CKSRYB104K16	C	253		CKSRYF104Z25
C	108		CKSRYB104K16	C	301		CKSRYF104Z25
C	109		CKSRYB104K16	C	302		CKSRYB334K10
C	110		CSZSQ100M6R3	C	303		CKSRYF104Z25
C	111		CKSRYB104K16	C	306		CKSRYF104Z25
C	112		CKSRYF224Z16	C	323		CSZS100M10
C	113		CSZSQ100M6R3	C	324		CKSRYB104K16
C	114		CKSRYB104K16	C	327		CSZS100M10
C	115		CKSRYF224Z16	C	328		CKSRYB104K16
C	116		CKSRYF104Z25	C	329		CSZS100M10
C	117		CSZSQ100M6R3	C	330		CSZS4R7M10
C	118		CKSRYB104K16	C	331		CSZS4R7M10
C	119		CKSRYF104Z25	C	332		CKSRYB104K16
C	120		CKSRYF104Z25	C	339		CSZS100M10
C	121		CKSRYF104Z25	C	341		CCSRCH101J50
C	122		CKSRYF104Z25	C	342		CKSRYF104Z25
C	123		CKSRYF103Z50	C	343		CKSRYB102K50
C	124		CCSRCH101J50	C	802		CSZSR101M6R3
C	125		CKSRYF104Z25	C	804		CCSRCH680J50
C	126		CKSRYF104Z25	C	805		CSZSR101M6R3
C	201		CKSRYB104K16	C	806		CKSRYB104K16
C	202		CKSRYB104K16	C	808		CKSRYB105K10
C	203		CKSRYB104K16	C	809		CCSRCH101J50
C	204		CKSRYB104K16	C	810	4.7µF	CCG1111
C	205		CKSRYB104K16	C	811		CCSRCH470J50
C	206		CKSRYB104K16	C	812		CKSYB475K10
C	207		CKSRYB104K16	C	813		CKSRYF474Z16
C	208		CKSRYB104K16	C	814		CKSRYF474Z16
C	209		CKSRYB104K16	C	815	10µF	CCG1150
C	211		CKSRYB104K16	C	816	10µF	CCG1150
C	213		CKSRYB104K16	C	817		CCSRCH221J50
C	214		CKSRYB104K16	C	819	330µF/6.3V	CCH1366
C	215		CKSRYB104K16	C	820	330µF/6.3V	CCH1366
C	216		CKSRYB104K16	C	821		CKSRYB682K50
C	217		CKSRYB104K16	C	822		CKSRYB224K10
C	220		CSZS100M10	C	823		CKSRYB103K25
C	221		CKSRYB104K16	C	824		CKSRYB223K25
C	222		CKSRYB104K16	C	825		CKSRYB103K25
C	223		CKSRYB224K10	C	826		CKSRYB104K16
C	224		CKSRYB104K16	C	827	10µF	CCG1150
C	225		CKSRYB104K16	C	828	10µF	CCG1150
C	227		CKSRYB104K16	C	829		CKSRYF104Z25

=====Circuit Symbol and No.===Part Name			Part No.
C	830		CKSRYF104Z25
C	831		CSZS100M6R3
C	832		CKSRYF103Z50
C	833		CKSRYF104Z25
C	834		CKSRYF103Z50
C	835		CKSRYF103Z50
C	836		CKSRYF104Z25
C	837		CKSRYF103Z50
C	901		CKSRYF104Z25
C	902		CKSRYF104Z25
C	903		CKSRYF104Z25
C	904		CKSRYF104Z25
C	905		CKSRYF104Z25
C	906		CKSRYF104Z25
C	907		CKSRYF104Z25
C	908		CKSRYF104Z25
C	909		CKSRYF104Z25
C	910		CKSRYF104Z25
C	911		CKSRYF104Z25
C	912		CKSRYF104Z25
C	913		CKSRYF104Z25
C	914		CKSRYB334K10

F Unit Number : CWX2591(AVIC-90DVD/UC)
: CWX2590(AVIC-9DVDII/EW)
Unit Name : GPS Unit

MISCELLANEOUS

=====Circuit Symbol and No.===Part Name			Part No.
IC	401	IC	UPC2749T
IC	402	IC	UPB1006GS
IC	441	IC	NJM2100V
IC	461	IC	ADC12H034CIMSA
IC	501	IC	PD3390A
IC	502	IC (AVIC-90DVD/UC)	PD6362B
IC	502	IC (AVIC-9DVDII/EW)	PD6361B
IC	503	IC	M5M5V216ATP-70HI
IC	504	IC	MAX6364PUT29
IC	532	IC (AVIC-9DVDII/EW)	LC72720YVS
Q	441	Transistor	2SB1132
D	401	Diode	1SV314
D	501	Diode	RB751V40
L	401	Inductor	CTF1549
L	402	Inductor	CTF1486
L	403	Inductor	CTF1486
L	404	Inductor	LCSA3N3R1608
L	405	Inductor	LCYB22NJ1608
L	406	Inductor	LCYB22NJ1608
L	407	Inductor	CTF1410
L	408	Inductor (AVIC-90DVD/UC)	CTF1556
L	408	Inductor (AVIC-9DVDII/EW)	CTF1410
L	409	Inductor	LCTB1R0K2125
L	410	Inductor	CTF1547
L	412	Inductor	CTF1547
L	413	Inductor	CTF1547
L	414	Inductor	CTF1547
L	415	Inductor	CTF1547
L	416	Inductor	CTF1547
L	417	Inductor	CTF1547
L	418	Inductor	CTF1410
L	441	Inductor	CTF1410
L	442	Inductor	CTF1410
L	461	Inductor	CTF1410
L	462	Inductor	CTF1410
L	467	Inductor	CTF1547
L	468	Inductor	CTF1547
L	469	Inductor	CTF1410
L	501	Inductor	CTF1410
L	502	Inductor	CTF1410
L	503	Inductor	CTF1410
L	504	Inductor	CTF1410
L	531	Inductor	CTF1410
X	401	TCXO 16.368MHz	CWX2381
X	501	Radiator 32.768kHz	CSS1319
X	502	Radiator 20.00MHz	CSS1549
X	532	Radiator 4.332MHz (AVIC-9DVDII/EW)	CSS1550
F	401	Filter	CTF1548

RESISTORS

R	401		RS1/16SS472J
R	402		RS1/16SS472J
R	403		RS1/16SS122J
R	404		RS1/16SS622J
R	405		RS1/16SS100J
R	406		RS1/16S271J
R	407		RS1/16S2R2J
R	441		RN1/16SE10R0D
R	442		RN1/16SE1501D
R	443		RN1/16SE2402D
R	444		RN1/16SE3302D
R	445		RN1/16SE4702D
R	446		RN1/16SE4702D
R	447		RS1/16S432J
R	448		RN1/16SE1002D
R	449		RN1/16SE2202D
R	450		RN1/16SE3302D
R	451		RS1/16S103J
R	452		RS1/16SS102J
R	454		RS1/16SS102J
R	460		RS1/16S0R0J
R	461		RS1/16SS102J
R	462		RS1/16SS102J
R	463		RAB4CQ102J
R	464		RAB4CQ333J
R	465		RS1/16SS102J
R	468	(AVIC-9DVDII/EW)	RS1/16SS471J
R	469	(AVIC-9DVDII/EW)	RAB4CQ471J
R	470		RAB4CQ471J
R	471		RAB4CQ104J
R	477		RS1/16SS222J
R	478		RS1/16SS222J
R	479		RS1/16SS222J
R	480		RS1/16SS332J
R	481		RS1/16SS332J
R	482		RS1/16SS223J
R	483		RS1/16SS473J
R	501		RS1/16SS0R0J
R	502		RS1/16SS102J
R	503		RS1/16SS154J
R	508	(AVIC-90DVD/UC)	RS1/16SS103J
R	508	(AVIC-9DVDII/EW)	RS1/16SS472J
R	509		RS1/16SS473J
R	510		RS1/16SS102J
R	511		RS1/16SS103J
R	512		RS1/16SS473J
R	513		RS1/16SS103J
R	514		RS1/16SS473J
R	515		RS1/16SS473J
R	517		RS1/16SS103J
R	519		RS1/16SS473J
R	521		RS1/16SS473J
R	532	(AVIC-9DVDII/EW)	RS1/16SS104J
R	533	(AVIC-90DVD/UC)	RS1/16SS103J
R	533	(AVIC-9DVDII/EW)	RS1/16SS332J

=====Circuit Symbol and No.===Part Name			Part No.
R	534		RS1/16SS103J
R	535		RS1/16SS103J
R	536		RS1/16SS0R0J
R	537	(AVIC-9DVDII/EW)	RS1/16S0R0J
R	538	(AVIC-9DVDII/EW)	RS1/16SS0R0J

CAPACITORS

=====Circuit Symbol and No.===Part Name			Part No.
C	401		CCSRCH100D50
C	402		CCSSCH101J50
C	403		CKSSYB104K10
C	404		CCSSCH101J50
C	405		CCSRUJ220J50
C	406		CCSRUJ220J50
C	407		CKSSYB333K16
C	408		CKSSYB182K50
C	409		CSZS100M6R3
C	410		CKSSYB103K16
C	411		CKSSYB102K50
C	412		CKSSYB102K50
C	413		CKSSYB104K10
C	414		CKSSYB104K10
C	415		CKSSYB104K10
C	416		CKSSYB104K10
C	417		CKSSYB104K10
C	418		CKSSYB102K50
C	419		CKSSYB104K10
C	420		CKSSYB104K10
C	421		CKSSYB102K50
C	422		CKSSYB103K16
C	423		CKSSYB104K10
C	424		CCSRCH102J50
C	425		CCSRCH271J50
C	426		CCSRCH102J50
C	427		CKSSYB104K10
C	428		CKSSYB103K16
C	429		CCSRCH301J50
C	430		CCSSCH120J50
C	431		CCSRCH301J50
C	432		CKSSYB103K16
C	433		CCSRCH101J50
C	434		CKSSYB102K50
C	435		CKSSYB103K16
C	436		CKSSYB104K10
C	441		CKSRYB104K16
C	442		CCSRCH101J50
C	443		CKSRYB104K16
C	444		CKSSYB103K16
C	445		CKSSYB104K10
C	461	22μF/6.3V	CCH1408
C	462		CKSRYB104K16
C	463		CKSRYB104K16
C	464		CKSSYB103K16
C	465		CKSSYB103K16
C	466		CKSSYB103K16
C	467		CKSSYB103K16
C	468		CKSSYB104K10
C	469		CSZS100M10
C	470		CKSSYB104K10
C	471		CCSSCH101J50
C	501		CKSSYB104K10
C	502		CCSRCH150J50
C	503		CCSRCH150J50
C	504		CKSSYB104K10
C	506		CKSSYB104K10
C	507		CKSSYB104K10
C	508		CKSSYB104K10
C	509		CKSSYB104K10
C	511		CKSSYB104K10
C	512		CKSSYB104K10
C	514		CSZS100M6R3
C	515		CKSSYB104K10
C	516		CKSSYB104K10
C	517		CKSSYB104K10
C	518		CKSSYB104K10
C	535	(AVIC-9DVDII/EW)	CSZS100M6R3
C	539	(AVIC-9DVDII/EW)	CCSRCH100D50
C	540	(AVIC-9DVDII/EW)	CCSRCH100D50
C	541	(AVIC-9DVDII/EW)	CCSRCH561J50
C	542	(AVIC-9DVDII/EW)	CKSSYB104K10
C	543	(AVIC-9DVDII/EW)	CSZS100M6R3
C	544	(AVIC-9DVDII/EW)	CCSRCH331J50
C	545	(AVIC-9DVDII/EW)	CKSSYB104K10

Main Unit
Consists of
Main PCB
Interface PCB
Grille PCB
G-Sensor PCB

ABCD Unit Number : CWM8484
(AVIC-90DVD/UC)
: CWM8482
(AVIC-9DVDII/EW)
Unit Name : Main Unit

MISCELLANEOUS

=====Circuit Symbol and No.===Part Name			Part No.
IC	571	IC	S-81250SGUP
IC	601	IC	PE5228A
IC	602	IC	TC7SET08FU
IC	603	IC	TC7SET08FU
IC	604	IC	TC7SH08FU
IC	605	IC	TC7SH08FU
IC	606	IC	TC7S14FU
IC	607	IC	TC7SET08FU
IC	608	IC	TC7W32FU
IC	609	IC	TC7SH04FU
IC	610	IC	TC7W126FU
IC	612	IC	TC7SET08FU
IC	613	IC	TC7SET08FU
IC	631	IC	S-8423AFS
IC	661	IC	PAJ002A
IC	662	IC	TPD1018F
IC	663	IC	TPD1018F
IC	665	IC	NJM2904M
IC	1801	IC	NJM2903V
IC	1850	IC	TPS5103IDB
IC	1851	IC	TPS5103IDB
IC	1951	IC	M5237ML
IC	3001	IC	TC7S66F
IC	3002	IC	TC7SET08F
IC	3004	IC	TC7SZ08FU
IC	3005	IC	CXA1645M
IC	3006	IC	NJM2246M
IC	3007	IC	NJM2244M
IC	3601	IC	NJM3404AM
IC	3602	IC	NJM2904M
IC	3752	IC	TC74HC4053AFT
IC	3753	IC	TC7SET08FU
IC	3851	IC	NJM3404AM
IC	3901	IC	NJM2068MD
IC	3902	IC	NJM3414AM
IC	3903	IC	NJM2068MD
IC	3926	IC	TDA7052A
IC	3927	IC	NJM2904M
IC	3951	IC	NJM4558M
IC	3952	IC	TC7S66FU

=====Circuit Symbol and No.===Part Name			Part No.
IC	3953	IC	NJM4558M
IC	5001	IC	UPD4723GS
Q	551	Chip Transistor (AVIC-9DVDII/EW)	2SC2712
Q	635	Transistor	2SA1036K
Q	636	Transistor	DTC114EU
Q	661	Transistor	2SB1184F5
Q	662	Transistor	DTC114EU
Q	664	Transistor	DTC114EU
Q	665	Transistor	2SA1162
Q	667	Transistor	2SC2712
Q	668	Transistor	2SC2712
Q	669	Transistor	DTC114EU
Q	670	Transistor	DTB113ZK
Q	671	Transistor	UMD2N
Q	672	Transistor	UMD2N
Q	673	Transistor	DTC114EU
Q	675	Transistor	DTC143EU
Q	1802	Transistor	DTC114EU
Q	1803	Transistor	IMD3A
Q	1804	Transistor	2SD2098
Q	1805	Transistor	2SA1037K
Q	1806	Transistor	DTC114EU
Q	1841	Transistor	2SA1037K
Q	1842	Transistor	DTC114EU
Q	1852	FET	RK4936
Q	1853	FET	RK4936
Q	1951	Transistor	2SB1572
Q	1952	Transistor	2SB1184F5
Q	1953	Transistor	DTC114EU
Q	2851	Transistor	IMD3A
Q	2852	Transistor	DTC114EU
Q	3001	Transistor	2SC2712
Q	3151	Transistor	2SC2712
Q	3851	Transistor	DTC323TU
Q	3852	Transistor	DTC323TU
Q	3853	Transistor	DTC323TU
Q	3857	Transistor	IMD2A
Q	3858	Transistor	IMD2A
Q	3859	Transistor	IMD2A
Q	3901	Transistor	DTC144EU
Q	3902	Transistor	DTC323TK
Q	3903	Transistor	DTC323TK
Q	3904	Transistor	IMD2A
Q	3905	Transistor	DTC323TU
Q	3906	Transistor	DTC144EU
Q	3907	Transistor	IMD2A
Q	5001	Transistor (AVIC-90DVD/UC)	2SD1760F5
D	551	Diode (AVIC-9DVDII/EW)	HZU3R3(B1)
D	552	Diode	UDZS5R6(B)
D	601	Diode	1SS355
D	661	Diode	RB751V40
D	663	Diode	UDZ20(B)
D	664	Diode	UDZS6R8(B)
D	665	Diode	1SS355
D	666	Diode	1SS355
D	667	Diode	1SS355
D	668	Diode	1SS355
D	669	Diode	UDZS6R8(B)
D	670	Diode	RB500V-40
D	671	Diode	RB500V-40
D	1801	Diode	5KP22A
D	1803	Diode	MA738
D	1804	Diode	S1G-6904G2P
D	1805	Diode	S1G-6904G2P
D	1806	Diode	S1G-6904G2P

=====Circuit Symbol and No.===Part Name			Part No.
D	1807	Diode	S1G-6904G2P
D	1808	Diode	S1G-6904G2P
D	1809	Diode	MA8180(M)
D	1810	Diode	MA8180(M)
D	1811	Diode	MA8180(M)
D	1812	Diode	KS926S2
D	1817	Diode	UDZ13(B)
D	1818	Diode	HZU7R5(B3)
D	1841	Diode	MA110
D	1850	Diode	RB400D
D	1851	Diode	RB400D
D	1852	Diode	RB060L-40
D	1853	Diode	RB060L-40
D	1951	Diode	S1G-6904G2P
D	2851	LED	CL150PGCD(AB)
D	2852	LED	CL150PGCD(AB)
D	2853	LED	CL150PGCD(AB)
D	2854	Diode	CL150RCD
D	2855	LED	CL150PGCD(AB)
D	2856	Diode	MA8062(H)
D	2860	LED	CL150PGCD(AB)
D	2861	Chip LED	CL220UBXTS
D	2862	Diode	CL150RCD
D	2863	LED	CL150PGCD(AB)
D	2864	LED	CL150PGCD(AB)
D	2865	Diode	MA8062(H)
D	3001	Diode	UDZS10(B)
D	3002	Diode	UDZS10(B)
D	3003	Diode	UDZS10(B)
D	3004	Diode	UDZS10(B)
D	3005	Diode	UDZS10(B)
D	3151	Diode	UDZS6R8(B)
D	3152	Diode	UDZS6R8(B)
D	3153	Diode	UDZS6R8(B)
D	3154	Diode	UDZS6R8(B)
D	3155	Diode	UDZS10(B)
D	3156	Diode	UDZS10(B)
D	3157	Diode	1SS355
D	3158	Diode	UDZS10(B)
D	3159	Diode	UDZS10(B)
D	3160	Diode	UDZS10(B)
D	3851	Diode	DAP202U
D	3852	Diode	DAP202U
D	3853	Diode	DAP202U
D	3901	Diode	1SS355
D	3902	Diode	MA8047(M)
D	3904	Diode	DAP202U
D	3905	Diode	1SS355
D	5001	Diode	UDZS6R8(B)
D	5006	Diode	MA8120(H)
D	5007	Diode	MA8120(H)
D	5008	Diode	MA8120(H)
D	5009	Diode	MA8120(H)
D	5010	Diode	MA8120(H)
D	5011	Diode	MA8120(H)
D	5016	Diode	MA8120(H)
D	5017	Diode	MA8120(H)
D	5018	Diode	UDZS6R8(B)
D	5019	Diode	MA8120(H)
D	5020	Diode	MA8120(H)
D	5021	Diode	MA8120(H)
D	5022	Diode	MA8120(H)
D	5027	Diode	MA8110(H)
D	5028	Diode	MA8110(H)
D	5029	Diode (AVIC-90DVD/UC)	MA8056(H)

=====Circuit Symbol and No.		===Part Name	Part No.
ZNR	551	Surge Protector (AVIC-9DVDII/EW)	RCCA-201Q43UA-PI
L	551	Inductor (AVIC-9DVDII/EW)	CTF1295
L	552	Inductor (AVIC-9DVDII/EW)	CTF1295
L	553	Inductor (AVIC-9DVDII/EW)	CTF1295
L	554	Inductor (AVIC-9DVDII/EW)	CTF1295
L	555	Inductor (AVIC-9DVDII/EW)	CTF1295
L	556	Inductor (AVIC-9DVDII/EW)	CTF1295
L	557	Inductor (AVIC-9DVDII/EW)	CTF1295
L	571	Inductor	CTF1295
L	572	Inductor	CTF1295
L	573	Inductor	CTF1295
L	601	Inductor	CTF1410
L	602	Inductor	CTF1410
L	603	Inductor	CTF1410
L	604	Inductor	CTF1410
L	605	Inductor	CTF1410
L	606	Inductor	CTF1410
L	607	Inductor	CTF1410
L	608	Inductor	CTF1410
L	609	Inductor	CTF1410
L	610	Inductor	CTF1410
L	611	Inductor	CTF1410
L	612	Inductor	CTF1410
L	661	Inductor	CTF1295
L	664	Inductor	CTF1390
L	665	Inductor	CTF1295
L	666	Inductor	CTF1410
L	667	Inductor	CTF1410
L	668	Inductor	CTF1410
L	1802	Inductor	CTF1556
L	1803	Inductor	CTF1556
L	1804	Inductor	CTF1556
L	1805	Inductor	CTF1556
L	1806	Inductor	CTF1556
L	1841	Inductor	CTF1556
L	1850	Inductor	CTH1254
L	1851	Inductor	CTH1255
L	1852	Inductor	CTH1257
L	1853	Inductor	CTH1257
L	2851	Inductor	CTF1295
L	2852	Inductor	CTF1295
L	2853	Inductor	CTF1295
L	2854	Inductor	CTF1295
L	2855	Inductor	CTF1295
L	3001	Inductor	CTF1410
L	3002	Inductor	CTF1410
L	3003	Inductor	CTF1410
L	3005	Inductor	LCTA680J3225
L	3006	Inductor	CTF1410
L	3025	Inductor	CTF1410
L	3151	Inductor	CTF1557
L	3152	Inductor	CTF1558
L	3153	Inductor	CTF1557
L	3154	Inductor	CTF1557
L	3157	Inductor	CTF1306
L	3158	Inductor	CTF1306
L	3159	Inductor	CTF1306
L	3251	Inductor	CTF1556
L	3252	Inductor	CTF1556
L	3253	Inductor	CTF1556
L	3254	Inductor	CTF1556
L	3255	Inductor	CTF1556
L	3256	Inductor	CTF1556
L	3257	Inductor	CTF1556
L	3258	Inductor	CTF1556

=====Circuit Symbol and No.		===Part Name	Part No.
L	3259	Inductor	CTF1557
L	3260	Inductor	CTF1557
L	3261	Inductor	CTF1557
L	3262	Inductor	CTF1557
L	3263	Inductor	CTF1557
L	3264	Inductor	CTF1557
L	3265	Inductor	CTF1557
L	3266	Inductor	CTF1557
L	3267	Inductor	CTF1557
L	3268	Inductor	CTF1557
L	3269	Inductor	CTF1557
L	3270	Inductor	CTF1557
L	3271	Inductor	CTF1557
L	3272	Inductor	CTF1557
L	3273	Inductor	CTF1557
L	3274	Inductor	CTF1556
L	3751	Inductor	CTF1410
L	3752	Inductor	CTF1410
L	3951	Inductor	CTF1410
L	3952	Inductor	CTF1410
L	3953	Inductor	CTF1410
L	3954	Inductor	CTF1410
L	3955	Inductor	CTF1410
L	3956	Inductor	CTF1410
L	5001	Inductor	CTF1410
L	5002	Inductor	CTF1334
L	5003	Inductor	CTF1334
L	5004	Inductor	CTF1334
L	5007	Inductor	CTF1334
L	5008	Inductor	CTF1334
L	5009	Inductor	CTF1334
L	5010	Inductor	CTF1557
L	5011	Inductor	CTF1557
L	5012	Inductor (AVIC-90DVD/UC)	CTF1557
X	601	Ceramic Resonator 12.583MHz	CSS1108
S	2851	Switch(EJECT)	CSG1106
S	2852	Switch(RESET)	CSG1120
S	2853	Spring Switch(PC-CARD)	CSN1051
FU	1801	Fuse 2A	CEK1190
FU	1802	Fuse 4A	CEK1199
FU	1803	Fuse 2.3A	ICPS2R3
FU	1804	Fuse 4A	CEK1199
FU	1850	Fuse 1A	CEK1191
FU	3251	Fuse 1A	CEK1191
GY	572	Sensor	CSX1052
GY	573	Sensor	CSX1042
EF	1801	EMI Filter	CCG1025
EF	3001	EMI Filter	CCG1081
EF	3002	EMI Filter	CCG1081
EF	3003	EMI Filter	CCG1081
EF	3004	EMI Filter	CCG1081
EF	3005	EMI Filter	CCG1081
EF	3006	EMI Filter	CCG1081
EF	3151	EMI Filter	CCG1067
EF	3152	EMI Filter	CCG1067
EF	3251	EMI Filter	CCG1030
EF	3252	EMI Filter	CCG1030
EF	5001	EMI Filter	CCG1030
FE	551	Tuner Unit (AVIC-9DVDII/EW)	CWE1622
		GPS Unit (AVIC-90DVD/UC)	CWX2591
		GPS Unit (AVIC-9DVDII/EW)	CWX2590

RESISTORS

R	551	(AVIC-9DVDII/EW)	RS1/10S473J
R	552	(AVIC-9DVDII/EW)	RS1/10S473J
R	554	(AVIC-9DVDII/EW)	RS1/10S472J
R	555	(AVIC-9DVDII/EW)	RS1/10S471J
R	556	(AVIC-9DVDII/EW)	RS1/10S473J

=====Circuit Symbol and No.===Part Name			Part No.
R	557	(AVIC-9DVDII/EW)	RS1/10S474J
R	558	(AVIC-9DVDII/EW)	RS1/10S0R0J
R	561		RN1/16SE1001D
R	562		RN1/16SE1101D
R	563		RN1/16SE1001D
R	572		RS1/10S151J
R	573		RS1/10S105J
R	574		RS1/16S104J
R	575		RS1/16S0R0J
R	601		RS1/16S473J
R	602		RS1/16S473J
R	603		RS1/16S104J
R	605	(AVIC-90DVD/UC)	RS1/16S104J
R	606	(AVIC-9DVDII/EW)	RS1/16S104J
R	607		RS1/16S104J
R	610		RS1/16S104J
R	612		RS1/16S104J
R	613		RS1/16S473J
R	614		RS1/16S0R0J
R	615		RS1/16S104J
R	617		RS1/16S473J
R	618		RS1/16S105J
R	619		RS1/16S473J
R	620		RS1/16S473J
R	622		RS1/16S472J
R	626		RS1/16S104J
R	627		RS1/16S104J
R	628		RS1/16S472J
R	629		RS1/16S104J
R	630		RS1/16S473J
R	631		RS1/16S102J
R	632		RS1/16S104J
R	633		RS1/16S104J
R	635		RS1/16S104J
R	637		RS1/16S102J
R	638		RS1/16S104J
R	639		RS1/16S104J
R	640		RS1/16S104J
R	641		RS1/16S104J
R	642		RS1/16S104J
R	643		RS1/16S223J
R	644		RS1/16S682J
R	645		RS1/16S104J
R	646		RS1/16S104J
R	647		RS1/16S104J
R	648		RS1/16S104J
R	649		RS1/16S473J
R	662		RS1/8S2R2J
R	663		RS1/16S102J
R	665		RS1/16S333J
R	666		RS1/16S153J
R	667		RS1/16S104J
R	668		RS1/16S104J
R	669		RS1/16S104J
R	670		RS1/16S102J
R	671		RS1/16S102J
R	672		RS1/16S102J
R	673		RS1/16S104J
R	674		RS1/16S623J
R	675		RS1/16S363J
R	679		RS1/16S753J
R	680		RS1/16S363J
R	682		RS1/10S102J
R	683		RS1/16S101J
R	684		RS1/16S103J

=====Circuit Symbol and No.===Part Name			Part No.
R	685		RS1/16S471J
R	686		RS1/10S103J
R	687		RS1/16S562J
R	688		RS1/16S473J
R	689		RS1/16S393J
R	690		RS1/16S224J
R	691		RS1/16S103J
R	692		RS1/16S0R0J
R	693		RS1/16S103J
R	694		RS1/16S0R0J
R	695		RS1/16S473J
R	696		RS1/16S104J
R	697		RS1/16S0R0J
R	698		RS1/16S333J
R	699		RS1/16S203J
R	700		RS1/16S822J
R	701		RS1/16S202J
R	702		RS1/16S564J
R	703		RS1/16S102J
R	704		RS1/16S102J
R	705		RS1/16S513J
R	706		RS1/16S513J
R	707		RS1/16S104J
R	708		RS1/16S513J
R	709		RS1/16S473J
R	710		RS1/16S563J
R	711		RS1/16S104J
R	715		RS1/16S102J
R	716		RS1/16S102J
R	717		RS1/16S471J
R	720		RS1/10S0R0J
R	1801		RN1/10SE4701D
R	1802		RS1/10S473J
R	1803		RS1/10S102J
R	1804		RS1/4S102J
R	1805		RS1/10S224J
R	1806		RS1/10S103J
R	1807		RS1/10S103J
R	1808		RS1/8S0R0J
R	1820		RS1/4S471J
R	1821		RN1/16SE8201D
R	1822		RN1/16SE1502D
R	1823		RN1/16SE2702D
R	1824		RN1/16SE3303D
R	1825		RS1/16S332J
R	1826		RS1/16S273J
R	1827		RS1/16S273J
R	1828		RS1/16S332J
R	1841		RS1/10S103J
R	1842		RS1/10S103J
R	1843		RS1/16S102J
R	1844		RS1/16S104J
R	1850		RS1/16S101J
R	1851		RS1/16S101J
R	1852		RN1/16SE1600D
R	1853		RN1/16SE6801D
R	1854		RN1/16SE1601D
R	1855		RN1/16SE1600D
R	1856		RN1/16SE5601D
R	1857		RN1/16SE1001D
R	1858		RS1/16S332J
R	1859		RS1/16S332J
R	1860		RS1/16S154J
R	1861		RS1/16S154J
R	1862		RS1/16S184J

=====Circuit Symbol and No.===Part Name		Part No.
R	1864	RS1/16S184J
R	1866	RS1/16S100J
R	1867	RS1/16S100J
R	1868	RS1/16S100J
R	1869	RS1/16S100J
R	1951	RS1/16S223J
R	1952	RS1/4S102J
R	1953	RS1/4S102J
R	1954	RS1/16S221J
R	1955	RS1/10S271J
R	1956	RN1/10SE2702D
R	1957	RN1/10SE4701D
R	2851	RS1/8S471J
R	2852	RS1/10S620J
R	2853	RS1/10S331J
R	2854	RS1/10S331J
R	2855	RS1/10S331J
R	2856	RS1/8S331J
R	2857	RS1/10S620J
R	2858	RS1/10S103J
R	2860	RS1/10S271J
R	3001	RS1/16S222J
R	3002	RS1/16S222J
R	3003	RN1/10SE2002D
R	3004	RS1/16S473J
R	3005	RS1/16S101J
R	3006	RS1/16S103J
R	3007	RS1/16S272J
R	3008	RS1/16S272J
R	3009	RS1/16S101J
R	3010	RS1/16S301J
R	3014	RS1/10S620J
R	3015	RS1/10S750J
R	3016	RS1/10S750J
R	3017	RS1/10S750J
R	3018	RS1/10S750J
R	3024	RS1/16S105J
R	3025	RS1/16S0R0J
R	3026	RS1/16S105J
R	3027	RS1/10S750J
R	3028	RS1/16S105J
R	3029	RS1/16S910J
R	3030	RS1/16S910J
R	3031	RS1/16S910J
R	3151	RS1/16S473J
R	3152	RS1/16S104J
R	3153	RS1/10S102J
R	3154	RS1/10S102J
R	3156	RS1/10S102J
R	3157	RS1/10S0R0J
R	3158	RS1/10S102J
R	3206	RS1/16S102J
R	3207	RS1/16S102J
R	3208	RS1/16S102J
R	3209	RS1/16S102J
R	3217	RS1/16S102J
R	3218	RS1/16S102J
R	3220	RS1/16S0R0J
R	3225	RS1/16S101J
R	3226	RS1/16S102J
R	3227	RS1/16S102J
R	3228	RS1/16S102J
R	3229	RS1/16S102J
R	3230	RS1/16S102J
R	3231	RS1/16S102J
R	3233	RS1/16S0R0J
R	3234	RS1/16S104J
R	3235	RS1/16S104J
R	3238	RS1/16S104J
R	3240	RS1/16S104J
R	3241	RS1/16S104J
R	3242	RS1/16S104J
R	3243	RS1/16S0R0J
R	3250	RS1/16S102J
R	3251	RS1/16S0R0J
R	3252	RS1/16S0R0J
R	3253	RS1/16S0R0J
R	3255	RS1/16S102J
R	3256	RS1/16S104J
R	3259	RS1/16S104J
R	3260	RS1/16S104J
R	3262	RS1/16S102J
R	3263	RS1/16S104J
R	3264	RS1/16S0R0J
R	3267	RS1/16S102J
R	3268	RS1/16S104J
R	3270	RS1/16S105J
R	3273	RS1/16S105J
R	3274	RS1/16S105J
R	3278	RS1/16S105J
R	3282	RS1/16S102J
R	3283	RS1/16S102J
R	3601	RS1/16S102J
R	3602	RS1/16S102J
R	3603	RS1/16S153J
R	3604	RS1/16S683J
R	3605	RS1/16S682J
R	3606	RS1/16S682J
R	3607	RS1/16S682J
R	3608	RS1/16S104J
R	3609	RS1/16S104J
R	3610	RS1/16S101J
R	3611	RS1/16S102J
R	3770	RS1/16S0R0J
R	3772	RS1/16S104J
R	3851	RS1/16S102J
R	3852	RS1/16S472J
R	3853	RS1/16S152J
R	3854	RS1/16S472J
R	3855	RS1/16S472J
R	3856	RS1/16S472J
R	3857	RS1/16S102J
R	3859	RS1/16S152J
R	3861	RS1/16S472J
R	3863	RS1/16S333J
R	3864	RS1/16S683J
R	3865	RS1/16S154J
R	3866	RS1/16S101J
R	3867	RS1/16S333J
R	3868	RS1/16S683J
R	3869	RS1/16S473J
R	3870	RS1/16S473J
R	3871	RS1/16S105J
R	3872	RS1/16S105J
R	3873	RS1/16S154J
R	3874	RS1/16S101J
R	3901	RS1/16S103J
R	3902	RS1/16S473J
R	3903	RS1/16S473J
R	3904	RS1/16S473J

=====Circuit Symbol and No.		===Part Name	Part No.
R	3905		RS1/16S470J
R	3907		RS1/16S0R0J
R	3908		RS1/16S473J
R	3909		RS1/16S473J
R	3910		RS1/16S473J
R	3911		RS1/16S470J
R	3913		RS1/16S223J
R	3914		RS1/16S203J
R	3915		RS1/16S471J
R	3916		RS1/16S471J
R	3917		RS1/16S471J
R	3918		RS1/16S104J
R	3919		RS1/16S473J
R	3920		RS1/16S473J
R	3921		RS1/16S0R0J
R	3926		RN1/16SE5602D
R	3927		RN1/16SE1802D
R	3928		RS1/16S103J
R	3951		RS1/16S104J
R	3952		RS1/16S104J
R	3953		RS1/16S104J
R	3954		RS1/16S104J
R	3956		RS1/16S104J
R	3958		RS1/16S563J
R	3959		RS1/16S563J
R	3960		RS1/16S563J
R	3967		RS1/16S0R0J
R	3968		RS1/16S0R0J
R	3969		RS1/16S0R0J
R	3970		RS1/16S0R0J
R	3971		RS1/16S0R0J
R	3972		RS1/16S0R0J
R	3981		RS1/16S104J
R	3982		RS1/16S104J
R	3983		RS1/16S102J
R	3986		RS1/16S104J
R	3987		RS1/16S104J
R	3988		RS1/16S104J
R	3989		RS1/16S104J
R	3990		RS1/16S104J
R	3991		RS1/16S101J
R	3992		RS1/16S104J
R	3993		RS1/16S104J
R	3994		RS1/16S104J
R	3995		RS1/16S0R0J
R	3996		RS1/16S101J
R	3997		RS1/16S473J
R	3998		RS1/16S152J
R	5004		RS1/16S681J
R	5006		RS1/16S681J
R	5007		RS1/16S681J
R	5008		RS1/16S681J
R	5009		RS1/16S101J
R	5010		RS1/16S101J
R	5011		RS1/16S101J
R	5012		RS1/16S101J
R	5015		RS1/16S101J
R	5016		RS1/16S101J
R	5017		RS1/16S101J
R	5018		RS1/16S681J
R	5019		RS1/16S681J
R	5020	(AVIC-90DVD/UC)	RS1/10S122J
R	5021	(AVIC-90DVD/UC)	RS1/10S122J
R	5022		RS1/16S100J

CAPACITORS

=====Circuit Symbol and No.		===Part Name	Part No.
C	551	(AVIC-9DVDII/EW)	CKSQYB473K50
C	552	(AVIC-9DVDII/EW)	CEV100M16
C	553	(AVIC-9DVDII/EW)	CKSQYB473K50
C	554	(AVIC-9DVDII/EW)	CEV100M16
C	555	(AVIC-9DVDII/EW)	CEV100M16
C	556	(AVIC-9DVDII/EW)	CKSQYB473K50
C	557	(AVIC-9DVDII/EW)	CKSQYB103K50
C	558	(AVIC-9DVDII/EW)	CKSQYB473K50
C	571		CEV1R0M50
C	572		CKSQYF334Z25
C	573		CKSRYF104Z25
C	574		CEVQ101M10
C	575		CKSQYB105K16
C	576		CKSRYB104K16
C	577		CKSRYB104K16
C	578		CKSQYB103K25
C	579		CKSYB106K6R3
C	601		CKSRYF104Z25
C	602		CKSRYF104Z25
C	603		CKSRYF104Z25
C	604		CKSRYF104Z25
C	605		CKSRYF104Z25
C	606		CKSRYF104Z25
C	607		CKSRYF104Z25
C	608		CKSRYF104Z25
C	609		CKSRYF104Z25
C	611		CKSRYF104Z25
C	612		CKSRYF104Z25
C	613		CKSRYF104Z25
C	614		CKSRYF104Z25
C	631		CKSRYF104Z25
C	632		CKSRYF104Z25
C	634		CKSRYF104Z25
C	635		CEV100M16
C	651		CKSRYB104K16
C	652		CKSRYB104K16
C	653		CEVQ220M16
C	654		CKSRYB474K10
C	661		CSZST330M16
C	662		CKSRYF104Z25
C	663		CKSRYF104Z25
C	664		CKSRYF104Z25
C	665		CKSRYF104Z25
C	666		CKSRYB104K16
C	667		CKSRYF104Z25
C	668		CKSRYB104K16
C	669		CKSRYB104K16
C	672		CKSRYB823K16
C	673		CKSRYB103K50
C	674		CKSRYB104K16
C	675		CKSRYB102K50
C	676		CKSRYF104Z25
C	679		CKSRYF104Z25
C	682		CKSRYF104Z25
C	684		CKSRYB473K50
C	685		CKSRYB473K50
C	686		CKSRYB473K50
C	687		CKSRYB473K50
C	1801		CKSRYB104K16
C	1803		CKSRYB104K16
C	1804		CKSRYB104K16
C	1805		CKSRYB473K50
C	1806		CKSRYB473K50
C	1807		CKSRYB104K16
C	1808		CKSRYF103Z50

=====Circuit Symbol	and No.	===Part Name	Part No.
C	1809		CKSRYB104K16
C	1810	10000μF/16V	CCH1412
C	1811		CKSRYB104K16
C	1831		CKSRYB103K50
C	1832		CKSRYB103K50
C	1833		CEV101M16
C	1834		CKSRYB103K50
C	1835		CKSRYB473K50
C	1836		CKSRYB103K50
C	1841		CKSRYB104K16
C	1842		CKSRYB104K16
C	1850		CKSRYB103K50
C	1851		CKSRYB153K50
C	1852		CCSRCH101J50
C	1853		CCSRCH101J50
C	1854		CKSRYB104K16
C	1855		CKSRYB104K16
C	1856		CKSRYB103K50
C	1857		CCSRCH330J50
C	1858		CKSRYB105K10
C	1859		CKSRYB103K50
C	1860		CCSRCH330J50
C	1861		CKSRYB105K10
C	1862		CKSYB475K10
C	1863		CKSYB475K10
C	1864	4.7μF	CCG1111
C	1865		CKSRYF474Z16
C	1866	4.7μF	CCG1111
C	1867		CKSRYF474Z16
C	1868	10μF	CCG1150
C	1869	10μF	CCG1150
C	1870	100μF/10V	CCH1332
C	1871	100μF/10V	CCH1332
C	1872	100μF/10V	CCH1332
C	1873		CKSRYF104Z25
C	1874		CKSRYF104Z25
C	1875	10μF	CCG1150
C	1876	10μF	CCG1150
C	1877	10μF	CCG1150
C	1878	10μF	CCG1150
C	1879	10μF	CCG1150
C	1880	10μF	CCG1150
C	1881		CKSRYB102K50
C	1951		CKSRYB474K10
C	1952		CKSQYB105K16
C	1953		CEV101M10
C	2851		CKSQYB102K50
C	2853		CKSRYB102K50
C	2854		CKSQYB104K50
C	3001		CCSRCH5R0C50
C	3002		CKSRYF104Z25
C	3003		CKSRYF104Z25
C	3004		CKSRYF104Z25
C	3006		CKSRYB104K16
C	3007		CKSRYB104K16
C	3008		CKSRYB104K16
C	3009		CKSRYF104Z25
C	3010		CEVQ470M16
C	3011		CKSRYB103K50
C	3012		CCSRCH470J50
C	3013		CCSRCH220J50
C	3014		CEV100M16
C	3015		CKSRYF104Z25
C	3016		CKSRYB103K50
C	3017		CEVQ470M16
C	3018		CEV221M4
C	3019		CEV221M4
C	3020		CEV221M4
C	3021	330μF/6.3V	CCH1410
C	3022		CEV100M10
C	3023	330μF/6.3V	CCH1410
C	3025		CEV100M10
C	3026		CKSRYB105K6R3
C	3027		CKSRYB105K6R3
C	3028		CKSRYB103K50
C	3029		CEVQ101M10
C	3031		CEV100M10
C	3032		CKSRYB105K6R3
C	3033		CKSRYB103K50
C	3034		CCSRCH680J50
C	3151		CKSRYB102K50
C	3152		CKSRYB102K50
C	3153		CKSRYB102K50
C	3154		CCSRCH101J50
C	3155		CCSRCH101J50
C	3156		CKSRYB102K50
C	3157		CKSRYB104K16
C	3158		CKSRYB104K16
C	3159		CKSRYB102K50
C	3160		CKSRYB102K50
C	3251		CEV101M10
C	3252		CKSRYF105Z10
C	3253		CEV220M10
C	3254		CKSRYF105Z10
C	3256		CKSRYB105K6R3
C	3258		CKSRYF105Z10
C	3259		CEVQ101M10
C	3260		CKSRYF104Z25
C	3261		CEVQ101M10
C	3601		CEVQ220M16
C	3602		CKSRYB473K50
C	3603		CKSRYF104Z25
C	3604		CEVQ220M16
C	3605		CKSRYB184K10
C	3606		CKSRYB473K50
C	3607		CKSRYB224K16
C	3608		CEV100M16
C	3609		CKSRYF104Z25
C	3610		CEV220M16
C	3611		CKSRYB103K50
C	3612		CSZSR100M16
C	3753		CKSRYB104K16
C	3754		CKSRYB104K16
C	3851		CKSRYF104Z25
C	3852		CKSRYB471K50
C	3853		CCSRCH680J50
C	3854		CKSRYF105Z10
C	3855		CKSRYB471K50
C	3856		CEV100M16
C	3857		CKSRYB105K10
C	3858		CKSRYB474K10
C	3859		CKSRYB105K10
C	3860		CKSRYB474K10
C	3861		CCSRCH680J50
C	3862		CKSRYF105Z10
C	3901		CEV100M16
C	3902		CCSRCH151J50
C	3903		CCSRCH330J50
C	3904		CCSRCH151J50
C	3905		CCSRCH330J50

=====Circuit Symbol and No.===Part Name			Part No.
C	3907		CKSRYF104Z25
C	3909		CEVNP100M16
C	3910		CEVNP100M16
C	3911		CKSRYF104Z25
C	3912		CKSRYB105K6R3
C	3913		CEV100M16
C	3914		CEV100M16
C	3915		CKSRYF104Z25
C	3918		CKSRYB105K10
C	3920		CSZSR100M16
C	3926		CKSRYF105Z10
C	3927		CKSRYB105K6R3
C	3928		CEV1R0M50
C	3929		CKSRYF104Z25
C	3930		CKSRYB105K10
C	3931		CEVQ101M10
C	3932		CKSRYB103K50
C	3933		CKSRYF104Z25
C	3955		CKSRYF104Z25
C	3956		CKSRYB105K6R3
C	3958		CKSRYB105K6R3
C	3959		CKSRYB221K50
C	3960		CKSRYB561K50
C	3962		CEV220M16
C	3963		CCSRCH121J50
C	3964		CEVNP2R2M35
C	3965		CEVNP2R2M35
C	3971		CKSRYB391K50
C	3972		CKSRYB471K50
C	3973		CCSRCH121J50
C	3974		CCSRCH820J50
C	3975		CKSRYB102K50
C	3976		CEV220M16
C	3977		CKSRYF104Z25
C	3978		CKSRYB105K10
C	3980		CKSRYB105K10
C	5001		CKSRYB105K6R3
C	5002		CEV1R0M50
C	5003		CEV1R0M50
C	5004		CEV1R0M50
C	5005		CEV1R0M50
C	5006		CEV1R0M50
C	5008		CKSRYB102K50
C	5010		CKSRYB102K50
C	5011		CKSRYB102K50
C	5012		CKSRYB102K50
C	5013		CKSRYB102K50
C	5014		CKSRYB102K50
C	5015		CEV330M6R3
C	5022		CKSRYB105K6R3
C	5023		CKSRYB103K25
C	5025		CEV100M16
C	5026		CKSRYB473K16
C	5027		CEV220M6R3
C	5028		CKSRYB473K16
C	5029		CKSRYB103K25

G Unit Number : CWX2727
Unit Name : DVD Core Unit V

MISCELLANEOUS

=====Circuit Symbol and No.===Part Name			Part No.
IC	1100	IC	AN8702FH
IC	1101	IC	NJM2904M
IC	1200	IC	MN677061ZYUB
IC	1300	IC	BA5985FM
IC	1400	IC	MNZS25BDAUB
IC	1401	IC	TC74LCX245FT
IC	1403	IC	TC74LCX244FT
IC	1404	IC	TC74LCX244FT
IC	1405	IC	TC7SH04FU
IC	1500	IC	MSM56V16160F8TKFM
IC	1501	IC	MSM56V16160F8TKFM
IC	1502	IC	MN677532JAUB
IC	1503	IC	TC74VCX74FT
IC	1504	IC	TC74VCX04FT
IC	1506	IC	SM8703AV
IC	1509	IC	TC74VCX74FT
IC	1601	IC	AK4380VT
IC	1700	IC	PE5324C
IC	1701	IC	M5M5V216ATP-70HI
IC	1702	IC	PD6396B
IC	1704	IC	TC74VCX08FT
IC	1705	IC	TC7SH04FU
IC	1706	IC	TC7SH32FU
IC	1801	IC	BA05SFP
IC	1802	IC	BA033SFP
IC	1803	IC	BA18BC0WFP
IC	1804	IC	BA00BC0WFP
Q	1102	Transistor	2SD601A
Q	1104	Transistor	2SB1260
Q	1105	Transistor	2SB709A
Q	1107	Transistor	UN2211
Q	1108	Transistor	2SB1260
Q	1109	Chip Transistor	2SC2712
Q	1110	Chip Transistor	2SC2712
Q	1111	Chip Transistor	2SC2712
Q	1600	Transistor	2SA1037K
Q	1601	Transistor	2SA1037K
Q	1602	Transistor	FMG12
Q	1603	Transistor	IMD2A
Q	1700	Transistor	DTA123JK
D	1100	Diode	1SS355
D	1101	Diode	1SS355
D	1401	Diode	UDZ2R7(B)
D	1601	Chip Diode	MA151WA
D	1800	Diode	S2G-6600
D	1801	Diode	S2G-6600
D	1802	Diode	S2G-6600
D	1803	Diode	S2G-6600
D	1804	Diode	1SR154-400
L	1201	Inductor	CTF1409
L	1202	Inductor	CTF1409
L	1401	Inductor	CTF1409
L	1402	Inductor	CTF1409
L	1403	Inductor	CTF1395
L	1404	Inductor	CTF1473
L	1500	Inductor	CTF1395
L	1501	Inductor	CTF1394
L	1502	Inductor	CTF1409
L	1503	Inductor	CTF1399
L	1504	Inductor	CTF1399
L	1505	Inductor	CTF1399
L	1506	Inductor	CTF1409
L	1507	Inductor	CTF1473
L	1508	Inductor	CTF1473
L	1509	Inductor	CTF1473
L	1512	Inductor	CTF1470
L	1600	Inductor	CTF1473
L	1602	Inductor	CTF1399
L	1700	Inductor	CTF1395
L	1701	Inductor	CTF1409

=====Circuit Symbol and No.		===Part Name	Part No.
L	1702	Inductor	CTF1473
L	1704	Inductor	CTF1473
L	1720	Inductor	CTF1473
L	1732	Inductor	CTF1547
L	1759	Inductor	CTF1547
L	1760	Inductor	CTF1547
X	1500	Radiator 27MHz	CSS1531
X	1700	Ceramic Resonator 4.97MHz	CSS1575
S	1301	Spring Switch(CLAMP)	CSN1051
S	1302	Spring Switch(L/E ON/OFF)	CSN1051
S	1303	Spring Switch(8cm DETECT)	CSN1051
S	1304	Spring Switch(12cm DETECT)	CSN1051
VR	1500	Semi-fixed 2.2kΩ(B)	CCP1177
F	1600	Filter	CTF1515

RESISTORS

=====Circuit Symbol and No.		===Part Name	Part No.
R	1101		RS1/16SS330J
R	1102		RS1/16SS3R9J
R	1103		RS1/16SS330J
R	1104		RS1/16SS3R9J
R	1105		RS1/16SS122J
R	1106		RS1/16SS472J
R	1107		RS1/16S6201D
R	1108		RS1/16SS3R9J
R	1109		RS1/16SS3R9J
R	1110		RS1/16S1002D
R	1113		RS1/16S2402D
R	1114		RS1/16SS823J
R	1115		RS1/16SS682J
R	1116		RS1/16SS3R9J
R	1117		RS1/16SS3R9J
R	1118		RS1/16SS223J
R	1119		RS1/16SS202J
R	1120		RS1/16SS105J
R	1121		RS1/16SS105J
R	1122		RS1/16SS103J
R	1123		RS1/16SS103J
R	1124		RS1/16SS103J
R	1125		RS1/16SS103J
R	1126		RS1/16SS103J
R	1127		RS1/16SS103J
R	1128		RS1/16SS3R9J
R	1129		RS1/16SS3R9J
R	1130		RS1/16SS102J
R	1131		RS1/16SS102J
R	1132		RS1/16SS102J
R	1133		RS1/16SS102J
R	1134		RS1/16SS102J
R	1135		RAB4CQ0R0J
R	1136		RS1/16SS133J
R	1137		RS1/16SS133J
R	1138		RS1/16SS0R0J
R	1139		RS1/16SS0R0J
R	1140		RS1/16SS0R0J
R	1141		RS1/16SS0R0J
R	1142		RS1/16SS183J
R	1143		RS1/16SS273J
R	1144		RS1/16SS273J
R	1145		RS1/16SS0R0J
R	1146		RS1/16SS0R0J
R	1147		RS1/16SS0R0J
R	1148		RS1/16SS0R0J
R	1149		RS1/16SS102J
R	1150		RS1/16SS102J
R	1151		RS1/16SS102J
R	1152		RS1/16SS154J
R	1153		RS1/16SS154J
R	1154		RS1/16SS154J
R	1156		RS1/16SS224J
R	1157		RS1/16SS0R0J
R	1201		RS1/16SS203J
R	1202		RS1/16SS102J
R	1203		RS1/16SS471J
R	1204		RS1/16SS221J
R	1205		RS1/16SS221J
R	1206		RS1/16SS473J
R	1207		RS1/16SS101J
R	1208		RS1/16SS101J
R	1209		RS1/16SS473J
R	1210		RS1/16SS222J
R	1212		RS1/16SS473J
R	1213		RS1/16SS101J
R	1215		RS1/16SS123J
R	1216		RS1/16SS473J
R	1219		RS1/16SS123J
R	1220		RS1/16SS105J
R	1221		RS1/16SS562J
R	1222		RS1/16SS273J
R	1223		RS1/16SS273J
R	1226		RS1/16SS153J
R	1227		RS1/16SS123J
R	1228		RS1/16SS472J
R	1229		RS1/16SS472J
R	1230		RS1/16SS472J
R	1231		RS1/16SS273J
R	1232		RS1/16S6801D
R	1233		RS1/16SS273J
R	1234		RS1/16SS183J
R	1235		RS1/16SS102J
R	1242		RAB4CQ221J
R	1245		RS1/16SS562J
R	1246		RS1/16SS242J
R	1251		RS1/16SS473J
R	1255		RS1/16SS0R0J
R	1257		RS1/16S221J
R	1258		RS1/16SS221J
R	1259		RS1/16SS221J
R	1260		RS1/16SS221J
R	1261		RS1/16SS221J
R	1262		RS1/16SS273J
R	1263		RS1/16SS273J
R	1264		RS1/16SS104J
R	1301		RS1/16S3902D
R	1302		RS1/16S3902D
R	1303		RS1/16S3002D
R	1304		RS1/16S3902D
R	1305		RS1/16SS221J
R	1306		RS1/16SS0R0J
R	1307		RS1/16SS221J
R	1308		RS1/16S3002D
R	1310		RS1/16SS102J
R	1311		RS1/16S3902D
R	1312		RS1/16S0R0J
R	1314		RS1/16SS221J
R	1321		RS1/16SS221J
R	1323		RS1/16SS104J
R	1324		RS1/16SS473J
R	1325		RS1/16SS273J
R	1400		RAB4CQ681J
R	1401		RAB4CQ681J
R	1402		RAB4CQ103J

=====Circuit Symbol and No.===Part Name		Part No.
R	1403	RS1/16SS222J
R	1404	RAB4CQ820J
R	1405	RS1/16SS221J
R	1406	RS1/16SS103J
R	1407	RAB4CQ220J
R	1408	RAB4CQ220J
R	1409	RS1/16SS103J
R	1410	RAB4CQ220J
R	1411	RAB4CQ220J
R	1412	RAB4CQ0R0J
R	1413	RS1/16SS681J
R	1414	RS1/16SS820J
R	1415	RS1/16SS100J
R	1416	RS1/16SS681J
R	1417	RS1/16SS103J
R	1418	RS1/16SS681J
R	1419	RS1/16SS103J
R	1420	RS1/16SS103J
R	1421	RS1/16SS820J
R	1422	RS1/16SS820J
R	1423	RS1/16SS103J
R	1424	RS1/16SS220J
R	1425	RS1/16SS104J
R	1426	RS1/16SS103J
R	1429	RS1/16S470J
R	1430	RS1/16SS101J
R	1431	RS1/16SS103J
R	1434	RS1/16SS681J
R	1436	RS1/16SS103J
R	1437	RS1/16SS103J
R	1438	RS1/16SS221J
R	1439	RAB4CQ0R0J
R	1440	RAB4CQ0R0J
R	1441	RS1/16SS0R0J
R	1442	RS1/16SS221J
R	1443	RS1/16SS221J
R	1500	RS1/16SS560J
R	1501	RS1/16SS560J
R	1502	RS1/16SS560J
R	1503	RS1/16SS560J
R	1504	RS1/16SS560J
R	1505	RS1/16SS560J
R	1506	RS1/16SS560J
R	1507	RS1/16SS560J
R	1508	RS1/16SS560J
R	1509	RS1/16SS560J
R	1510	RS1/16SS560J
R	1511	RS1/16SS560J
R	1513	RS1/16SS750J
R	1514	RS1/16SS622J
R	1515	RS1/16SS162J
R	1516	RS1/16SS182J
R	1517	RS1/16SS201J
R	1518	RS1/16SS201J
R	1519	RS1/16S101J
R	1520	RS1/16S101J
R	1521	RS1/16S101J
R	1523	RS1/16SS221J
R	1524	RS1/16S470J
R	1527	RS1/16SS103J
R	1529	RS1/16SS104J
R	1534	RS1/16SS221J
R	1535	RS1/16SS101J
R	1537	RS1/16SS391J
R	1538	RS1/16SS391J

=====Circuit Symbol and No.===Part Name		Part No.
R	1539	RAB4CQ391J
R	1540	RAB4CQ391J
R	1541	RAB4CQ391J
R	1542	RAB4CQ391J
R	1543	RAB4CQ391J
R	1544	RAB4CQ391J
R	1545	RAB4CQ391J
R	1546	RS1/16SS103J
R	1548	RS1/16SS103J
R	1549	RS1/16SS560J
R	1550	RS1/16SS560J
R	1551	RS1/16SS560J
R	1552	RS1/16SS560J
R	1553	RS1/16SS560J
R	1554	RS1/16SS560J
R	1555	RS1/16SS560J
R	1556	RS1/16SS560J
R	1557	RS1/16SS560J
R	1558	RS1/16SS560J
R	1559	RS1/16SS560J
R	1560	RS1/16SS560J
R	1561	RS1/16SS560J
R	1562	RS1/16SS560J
R	1563	RS1/16SS560J
R	1564	RS1/16SS560J
R	1565	RS1/16SS560J
R	1566	RS1/16S101J
R	1567	RS1/16SS560J
R	1568	RS1/16SS560J
R	1569	RS1/16SS560J
R	1570	RS1/16SS560J
R	1571	RS1/16SS560J
R	1572	RS1/16SS560J
R	1573	RS1/16SS560J
R	1574	RS1/16SS560J
R	1575	RS1/16SS560J
R	1577	RS1/16S0R0J
R	1579	RS1/16S0R0J
R	1600	RS1/16SS271J
R	1601	RS1/16SS152J
R	1602	RS1/16SS101J
R	1604	RS1/16S3300D
R	1605	RS1/16SS122J
R	1606	RS1/16SS0R0J
R	1623	RS1/16SS102J
R	1624	RS1/16SS102J
R	1625	RS1/16SS223J
R	1626	RS1/16SS223J
R	1628	RS1/16S68R0D
R	1634	RS1/16SS472J
R	1635	RS1/16SS472J
R	1636	RS1/16SS472J
R	1637	RS1/16SS472J
R	1701	RN1/16SE1502D
R	1702	RS1/16SS221J
R	1703	RS1/16SS221J
R	1704	RS1/16SS104J
R	1705	RS1/16SS103J
R	1706	RS1/16SS103J
R	1707	RS1/16SS221J
R	1708	RS1/16SS0R0J
R	1709	RS1/16SS221J
R	1710	RS1/16SS473J
R	1711	RS1/16SS330J
R	1712	RS1/16SS0R0J

=====Circuit Symbol and No.===Part Name			Part No.
R	1713		RS1/16SS104J
R	1714		RS1/16SS104J
R	1715		RS1/16SS472J
R	1716		RS1/16SS104J
R	1717		RS1/16SS473J
R	1718		RS1/16SS104J
R	1719		RS1/16SS104J
R	1720		RS1/16SS473J
R	1721		RS1/16SS104J
R	1722		RS1/16SS104J
R	1723		RS1/16SS473J
R	1724		RS1/16SS221J
R	1725		RS1/16S0R0J
R	1726		RS1/16SS104J
R	1727		RS1/16SS103J
R	1728		RS1/16SS104J
R	1729		RS1/16SS104J
R	1730		RS1/16SS473J
R	1733		RS1/16SS104J
R	1734		RS1/16SS104J
R	1735		RS1/16SS222J
R	1736		RS1/16SS221J
R	1737		RS1/16SS221J
R	1738		RS1/16SS104J
R	1739		RS1/16SS103J
R	1740		RS1/16SS103J
R	1741		RS1/16SS221J
R	1742		RS1/16SS104J
R	1743		RS1/16SS221J
R	1744		RS1/16SS221J
R	1745		RS1/16SS221J
R	1746		RS1/16SS221J
R	1747		RS1/16SS222J
R	1748		RS1/16SS473J
R	1749		RS1/16SS104J
R	1750		RS1/16SS472J
R	1751		RS1/16SS103J
R	1752		RS1/16SS104J
R	1753		RS1/16SS104J
R	1754		RS1/16SS104J
R	1755		RS1/16SS104J
R	1756		RS1/16SS473J
R	1757		RS1/16SS472J
R	1758		RS1/16SS104J
R	1762		RS1/16SS104J
R	1763		RS1/16SS104J
R	1764		RS1/16SS104J
R	1766		RS1/16SS104J
R	1771		RS1/16SS104J
R	1772		RS1/16SS104J
R	1773		RS1/16SS104J
R	1774		RS1/16SS473J
R	1775		RS1/16SS221J
R	1776		RS1/16SS104J
R	1777		RS1/16SS104J
R	1778		RS1/16SS0R0J
R	1801		RS1/16S3902D
R	1802		RS1/16S3302D
R	1808		RS1/16SS102J
R	1809		RS1/16SS102J

CAPACITORS

=====Circuit Symbol and No.===Part Name			Part No.
C	1100		CKSRYB105K10
C	1101		CKSRYB473K25
C	1102		CKSSYB103K16
C	1103		CSZSR101M6R3
C	1104		CKSSYB104K10
C	1105		CKSSYB104K10
C	1106		CKSRYB473K25
C	1107		CKSSYB103K16
C	1108		CSZSR101M6R3
C	1109		CKSSYB104K10
C	1110		CKSRYB154K10
C	1111		CCSSCH221J25
C	1114		CCSSCH330J50
C	1115		CKSSYB104K10
C	1116		CCSSCH221J25
C	1117		CKSRYB105K10
C	1118		CKSSYB104K10
C	1119		CKSSYB104K10
C	1120		CKSSYB104K10
C	1121		CKSSYB104K10
C	1122		CSZSC470M16
C	1123		CKSRYB273K25
C	1124		CKSSYB104K10
C	1125		CKSSYB104K10
C	1126		CKSSYB473K10
C	1127		CCSRCH561J50
C	1128		CKSSYB104K10
C	1129		CKSSYB104K10
C	1130		CCSRCH102J50
C	1131		CCSSCH120J50
C	1133		CCSRCH561J50
C	1134		CKSSYB104K10
C	1136		CCSSCH101J50
C	1137		CCSSCH101J50
C	1138		CCSSCH101J50
C	1139		CKSSYB104K10
C	1140		CKSSYB103K16
C	1141		CKSSYB104K10
C	1142		CKSSYB104K10
C	1143		CKSSYB473K10
C	1144		CKSSYB473K10
C	1145		CKSSYB103K16
C	1146		CKSSYB473K10
C	1148		CKSSYB103K16
C	1201		CKSRYB105K10
C	1202		CCSSCH101J50
C	1203		CKSRYB474K10
C	1204		CCSRCH561J50
C	1205		CCSRCH331J50
C	1206		CKSRYB105K10
C	1207		CKSSYB104K10
C	1208		CCSRCH471J50
C	1209		CCSRCH391J50
C	1210		CKSRYB105K10
C	1211		CCSSCH101J50
C	1212		CKSSYB104K10
C	1213		CKSRYB474K10
C	1214		CCSRCH102J50
C	1215		CCSRCH102J50
C	1216		CKSSYB562K25
C	1217		CCSRCH102J50
C	1218		CKSSYB104K10
C	1219		CKSSYB104K10
C	1220		CKSRYB474K10
C	1221		CCSSCH470J50
C	1222		CKSRYB183K25
C	1223		CCSRCH102J50
C	1224		CKSSYB104K10
C	1225		CKSSYB104K10
C	1227		CKSSYB103K16

Circuit Symbol and No.		Part Name	Part No.
C	1228		CKSSYB104K10
C	1229		CCSRCH102J50
C	1230		CKSSYB103K16
C	1231		CKSSYB104K10
C	1232		CKSRYB154K10
C	1233		CKSSYB104K10
C	1234		CKSSYB104K10
C	1235		CKSSYB104K10
C	1236		CKSSYB471K50
C	1241		CKSSYB103K16
C	1242		CKSSYB103K16
C	1243		CKSSYB104K10
C	1300		CKSSYB103K16
C	1301		CKSSYB103K16
C	1304		CKSRYB104K16
C	1305		CEV101M16
C	1308		CKSSYB104K10
C	1400		CKSSYB104K10
C	1401		CKSSYB104K10
C	1402		CKSSYB104K10
C	1403		CKSSYB104K10
C	1404		CKSSYB104K10
C	1405		CKSSYB104K10
C	1406		CKSSYB104K10
C	1407		CKSSYB104K10
C	1408		CKSSYB104K10
C	1409		CKSSYB104K10
C	1410		CKSSYB104K10
C	1411		CKSSYB104K10
C	1412		CKSSYB104K10
C	1413		CKSSYB104K10
C	1414		CKSRYB105K10
C	1415		CKSSYB104K10
C	1416		CKSSYB104K10
C	1417		CCSSCH181J25
C	1418		CKSSYB471K50
C	1419		CKSSYB104K10
C	1421		CKSSYB104K10
C	1422		CKSSYB104K10
C	1423		CKSSYB104K10
C	1500		CKSSYB104K10
C	1501		CKSSYB224K6R3
C	1502		CKSSYB104K10
C	1503		CKSSYB224K6R3
C	1504		CKSSYB224K6R3
C	1505		CKSSYB224K6R3
C	1506		CSZSC101M10
C	1507		CKSSYB104K10
C	1508		CKSSYB104K10
C	1509		CKSSYB224K6R3
C	1510		CKSSYB224K6R3
C	1511		CKSSYB104K10
C	1512		CKSSYB104K10
C	1513		CKSSYB104K10
C	1514		CKSSYB104K10
C	1515		CKSSYB104K10
C	1516		CKSSYB104K10
C	1517		CKSSYB104K10
C	1518		CKSSYB104K10
C	1519		CKSSYB104K10
C	1520		CKSSYB104K10
C	1521		CKSSYB104K10
C	1522		CKSSYB104K10
C	1523		CKSSYB104K10
C	1524		CKSSYB104K10
C	1525		CKSSYB104K10
C	1526		CKSSYB104K10
C	1527		CKSSYB104K10
C	1528		CKSSYB104K10
C	1529		CKSSYB471K50
C	1530		CKSSYB104K10
C	1532		CKSSYB104K10
C	1534		CCSSCH150J50
C	1535		CKSSYB104K10
C	1536		CKSSYB104K10
C	1537		CCSSCH150J50
C	1538		CKSSYB104K10
C	1539		CKSSYB104K10
C	1540		CKSRYB105K10
C	1541		CKSRYB105K10
C	1542		CKSSYB104K10
C	1543		CKSSYB104K10
C	1544		CKSSYB104K10
C	1545		CKSSYB104K10
C	1546		CKSSYB104K10
C	1547		CKSSYB104K10
C	1548		CKSSYB104K10
C	1549		CKSSYB104K10
C	1550		CKSSYB104K10
C	1551		CKSSYB104K10
C	1552		CKSSYB104K10
C	1553		CKSSYB104K10
C	1554		CKSSYB104K10
C	1555		CKSSYB104K10
C	1556		CKSSYB104K10
C	1570		CSZSR101M6R3
C	1571		CSZSR101M6R3
C	1572		CEV101M10
C	1573		CEV101M10
C	1574		CSZSC470M10
C	1575		CSZSC470M10
C	1576		CKSSYB104K10
C	1577		CKSSYB104K10
C	1578		CKSSYB104K10
C	1579		CKSSYB104K10
C	1600		CKSRYB104K16
C	1601		CSZSR4R7M16
C	1602		CKSSYB102K50
C	1608		CSZSR4R7M16
C	1609		CSZSR4R7M16
C	1634	10μF/10V	CCH1349
C	1635	10μF/10V	CCH1349
C	1636		CKSSYB104K10
C	1637		CKSSYB104K10
C	1700		CKSSYB104K10
C	1701		CKSSYB104K10
C	1702		CKSRYB105K10
C	1703		CKSRYB105K10
C	1704		CKSSYB104K10
C	1705		CKSRYB105K10
C	1706		CKSSYB104K10
C	1707		CKSRYB105K10
C	1708		CKSSYB104K10
C	1709		CKSSYB104K10
C	1710		CKSSYB104K10
C	1711		CKSSYB104K10
C	1712		CKSSYB103K16
C	1713		CKSSYB104K10
C	1714		CKSYB106K6R3
C	1715		CKSSYB104K10

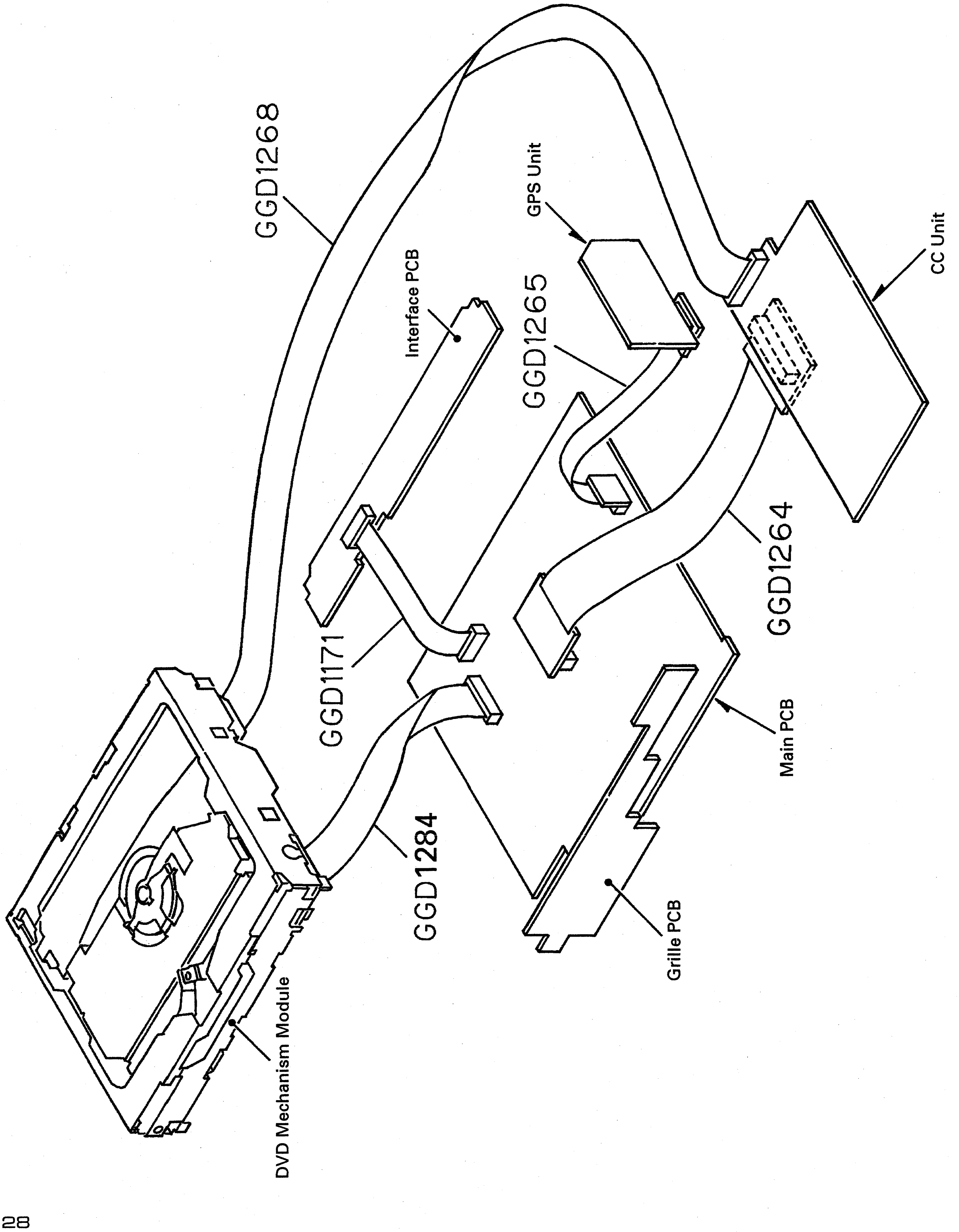
=====Circuit Symbol	and No.===	Part Name	Part No.
C	1716		CKSSYB104K10
C	1717		CKSSYB104K10
C	1719		CKSSYB471K50
C	1720		CKSSYB103K16
C	1721		CKSSYB104K10
C	1722		CKSSYB103K16
C	1800		CKSRYB474K10
C	1801		CKSRYB474K10
C	1802		CKSRYB474K10
C	1803		CKSRYB474K10
C	1804	22μF/6.3V	CCH1300
C	1805	22μF/6.3V	CCH1300
C	1808		CSZSC101M10
C	1809		CCSRCH102J50
C	1810		CCSRCH102J50
C	1811		CSZSR101M6R3
C	1812		CSZSC101M10

Miscellaneous Parts List

		Pickup Unit(Service)(DP4)	CXX1530
M	1	Motor Unit(LOADING)	CXB5960
M	2	Motor Unit(CARRIAGE)	CXB5955
M	3	Motor(SPINDLE)	CXB6218
		Fan Motor	CXM1192

6. ADJUSTMENT

6.1 JIG CONNECTION DIAGRAM


GGD1268
GPS Unit
CC Unit
Interface PCB
GGD1265
GGD1264
GGD1171
Main PCB
GGD1284
Grille PCB
DVD Mechanism Module

6.2 DVD ADJUSTMENT

Cautions for servicing

This product uses 5V and 3.3V as standard voltages. The electrical potential that is the reference for signals, is not GND, but VREF (approximately 2.2V) and VHALF (approximately 1.65V).

During product adjustments, if the reference voltage is mistakenly taken as GND, and a grounding contact is made, not only would it be impossible to measure the accurate electrical potential, but also the servo motor would malfunction, resulting in the application of a strong impact on the pick up. The following precautionary measures should be strictly adhered to, in order to avoid such problems.

The reference voltage and GND should not be confused when using the minus probe of a measurement device. When an oscilloscope is being used special care should be taken to make sure that the reference voltage is not connected to the probe of ch1 (on the minus side), while the probe of ch2 (on the minus side), is connected to GND. Further, since the body frame of most measurement devices have the same electrical potential as the minus side of the probe, the body frame of the measurement device should be set to floating ground.

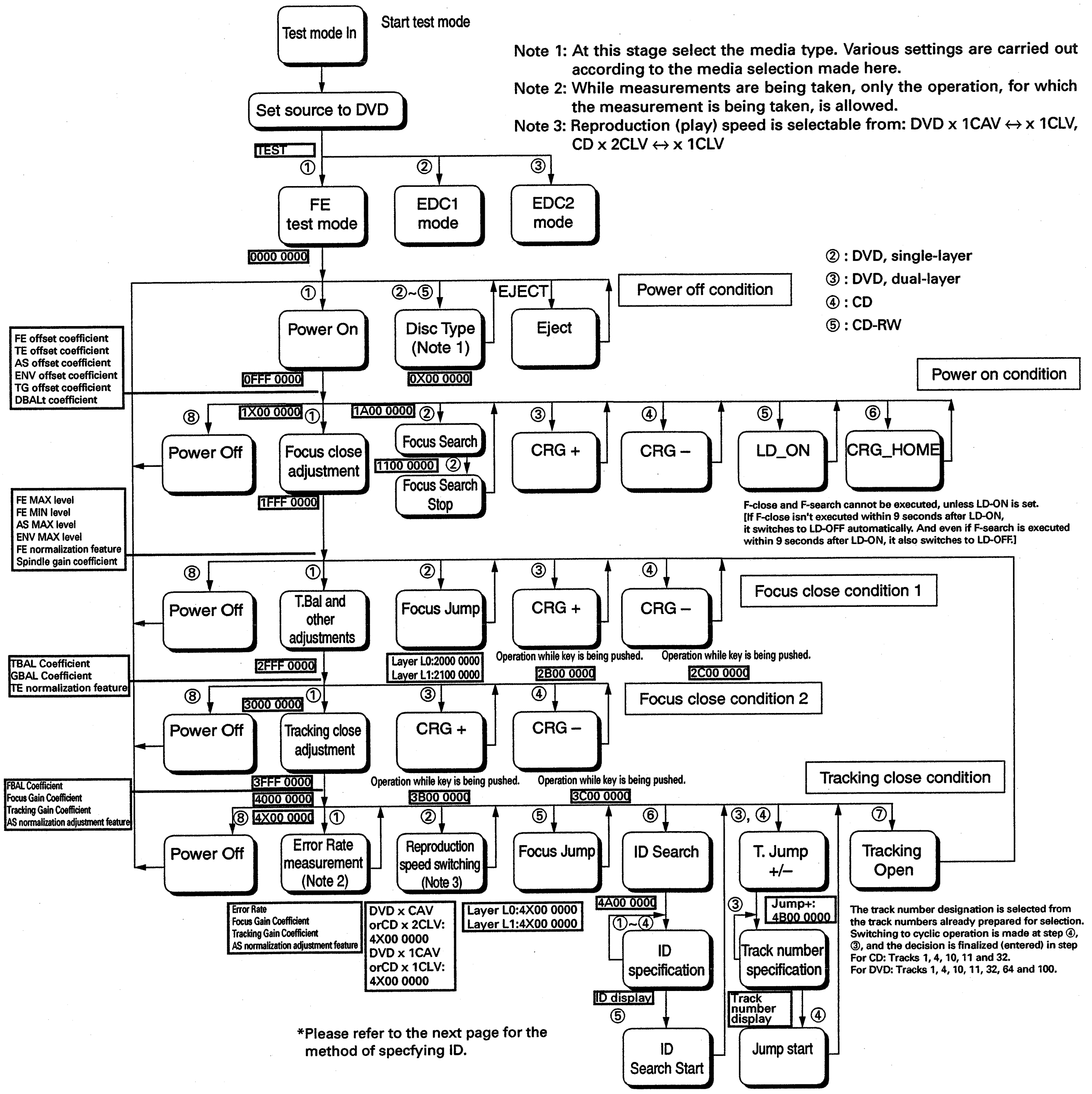
If the reference voltage is connected to GND by mistake, turn the regulator OFF immediately, or turn the power OFF.

- Remove the filters and wires used for measurements only after the regulator has been turned OFF.
- After the power supply is turned on, regulator ON the following adjustment and measurement are promptly done.
- Whenever the product is in the test mode, the software will not take any protective action. For this reason, special care should be taken to make sure that no mechanical or electrical shock could be applied to the product when taking measurements in the test mode.
- Whenever the EJECT key is pressed to eject the disk, no other keys, other than the EJECT key, should be pressed until the disk eject action has been completed.
- Press the EJECT key only after the disk has stopped completely.
- If the product hangs up turn the power OFF immediately.
- Laser didoes may be damaged, if the volume switch for the laser power adjustment of the pick up unit, is turned.

- Test mode starting procedure
  The test mode can be selected from the navigation test mode.

Please use the " remote control unit of the product accessory" after the test mode starts.

● Front-End test mode flow chart


Test mode In
Start test mode
Set source to DVD
TEST
①
②
③
FE test mode
EDC1 mode
EDC2 mode
0000 0000
①
②~⑤
EJECT
Power off condition
Power On
Disc Type (Note 1)
Eject
FE offset coefficient
TE offset coefficient
AS offset coefficient
ENV offset coefficient
TG offset coefficient
DBALt coefficient
0FFF 0000
0X00 0000
Power on condition
⑧
1X00 0000
①
1A00 0000
②
③
④
⑤
⑥
Power Off
Focus close adjustment
Focus Search
1100 0000
②
Focus Search Stop
CRG +
CRG –
LD_ON
CRG_HOME
1FFF 0000
FE MAX level
FE MIN level
AS MAX level
ENV MAX level
FE normalization feature
Spindle gain coefficient
⑧
①
②
③
④
Power Off
T.Bal and other adjustments
Focus Jump
CRG +
CRG –
Focus close condition 1
2FFF 0000
Layer L0:2000 0000
Layer L1:2100 0000
Operation while key is being pushed.
2B00 0000
Operation while key is being pushed.
2C00 0000
TBAL Coefficient
GBAL Coefficient
TE normalization feature
⑧
3000 0000
①
③
④
Focus close condition 2
Power Off
Tracking close adjustment
CRG +
CRG –
3FFF 0000
Operation while key is being pushed.
3B00 0000
Operation while key is being pushed.
3C00 0000
Tracking close condition
FBAL Coefficient
Focus Gain Coefficient
Tracking Gain Coefficient
AS normalization adjustment feature
4000 0000
⑧
4X00 0000
①
②
⑤
⑥
③, ④
⑦
Power Off
Error Rate measurement (Note 2)
Reproduction speed switching (Note 3)
Focus Jump
ID Search
T. Jump +/–
Tracking Open
Error Rate
Focus Gain Coefficient
Tracking Gain Coefficient
AS normalization adjustment feature
DVD x CAV
orCD x 2CLV:
4X00 0000
DVD x 1CAV
orCD x 1CLV:
4X00 0000
Layer L0:4X00 0000
Layer L1:4X00 0000
4A00 0000
①~④
ID specification
ID display
⑤
ID Search Start
③
Jump+:
4B00 0000
Track number specification
Track number display
④
Jump start

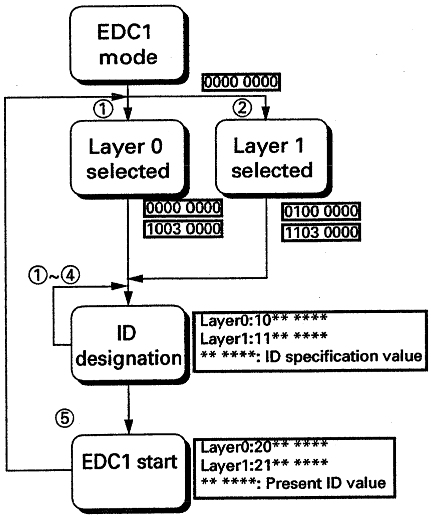
Note 1: At this stage select the media type. Various settings are carried out according to the media selection made here.
Note 2: While measurements are being taken, only the operation, for which the measurement is being taken, is allowed.
Note 3: Reproduction (play) speed is selectable from: DVD x 1CAV ↔ x 1CLV, CD x 2CLV ↔ x 1CLV

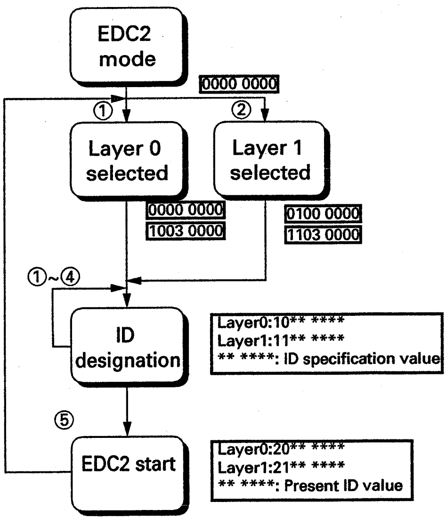
② : DVD, single-layer
③ : DVD, dual-layer
④ : CD
⑤ : CD-RW

F-close and F-search cannot be executed, unless LD-ON is set.
[If F-close isn't executed within 9 seconds after LD-ON, it switches to LD-OFF automatically. And even if F-search is executed within 9 seconds after LD-ON, it also switches to LD-OFF.]

The track number designation is selected from the track numbers already prepared for selection. Switching to cyclic operation is made at step ④, ③, and the decision is finalized (entered) in step
For CD: Tracks 1, 4, 10, 11 and 32.
For DVD: Tracks 1, 4, 10, 11, 32, 64 and 100.

*Please refer to the next page for the method of specfying ID.


EDC1 mode
0000 0000
①
②
Layer 0 selected
Layer 1 selected
0000 0000
1003 0000
0100 0000
1103 0000
①~④
ID designation
Layer0:10** ****
Layer1:11** ****
** ****: ID specification value
⑤
EDC1 start
Layer0:20** ****
Layer1:21** ****
** ****: Present ID value


EDC2 mode
0000 0000
①
②
Layer 0 selected
Layer 1 selected
0000 0000
1003 0000
0100 0000
1103 0000
①~④
ID designation
Layer0:10** ****
Layer1:11** ****
** ****: ID specification value
⑤
EDC2 start
Layer0:20** ****
Layer1:21** ****
** ****: Present ID value

Method for designating an ID address:

- A number of digits are determined through commands ① and ②. Numerical UP/DOWN operations are performed through commands ③ and ④. The decision is finalized (entered) with command ⑤.

OSD display

Error Code List

Error status from DVD micurocomputer	Contents	Display
0X50	Mecha. error	No dislay
0X40	No disc	No dislay
0X30	The temperature is abnormal	Thermal Protection in Motion
0X20	Read error	Error-02-XX
0XE2	Non-playable disc	NON-PLAYABLE DISC
0X90	Drrerent region disc	DFFERENT REGION DISC
0XFF	Undefined error	Error-FF

Error code of read error(Part of XX)

Error Code	Contents	Display
0X99	Data cannot read	Please condirm the disc
0X80	The address cannot be found	Please condirm the disc
0X90	Focus error	Please condirm the disc
0X91	Spindle lock NG	DVD is stopping because mechanism detected abnormality
0X92	Carrige home NG	DVD is stopping because mechanism detected abnormality
0X93	FOK error	Please condirm the disc
0X94	ID/Subcode cannot be read	Please condirm the disc
0X95	High spindle rotation	Please condirm the disc
0X96	Row spindle rotation	DVD is stopping because mechanism detected abnormality
0X98	TOC cannot be found	Please condirm the disc
0X9A	AV chip error	DVD is stopping because mechanism detected abnormality
0X9B	RecaveryNG(BE)	DVD is stopping because mechanism detected abnormality

● Skew adjustment

If any of the following replacements have been performed on the system, adjustments for pick up, must be conducted:

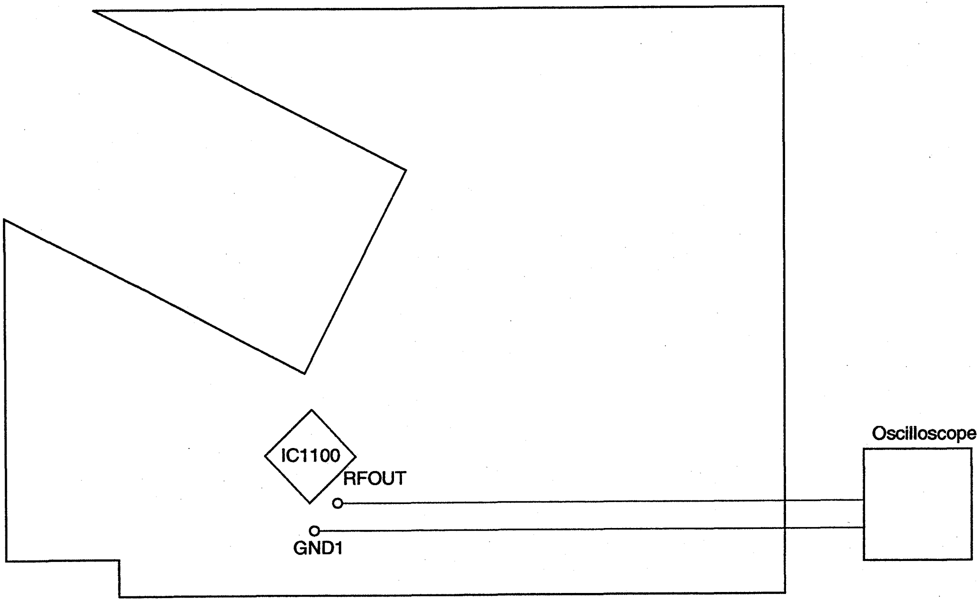
1. Pick up unit replacement
2. Spindle motor replacement
3. Carriage chassis replacement
4. Pick up unit main shaft replacement
5. Pick up unit sub-shaft replacement

Measurement device and tools : Oscilloscope
Allen key wrench
40-pin flexible extension
Adhesive material(GEM1033)
Screw rock(GYL1001)

Disk used : GGV1018
Measurement reference : GND1
Measurement point : RFOUT

Skew adjustment connection diagram

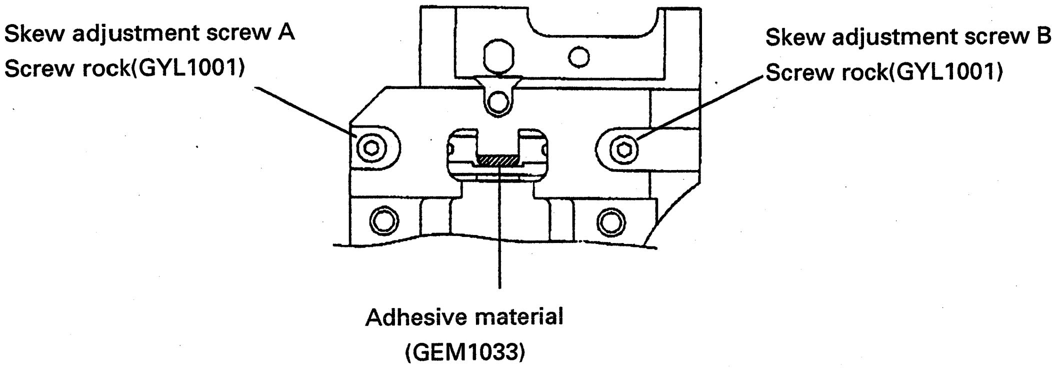
- DVD Core Unit V



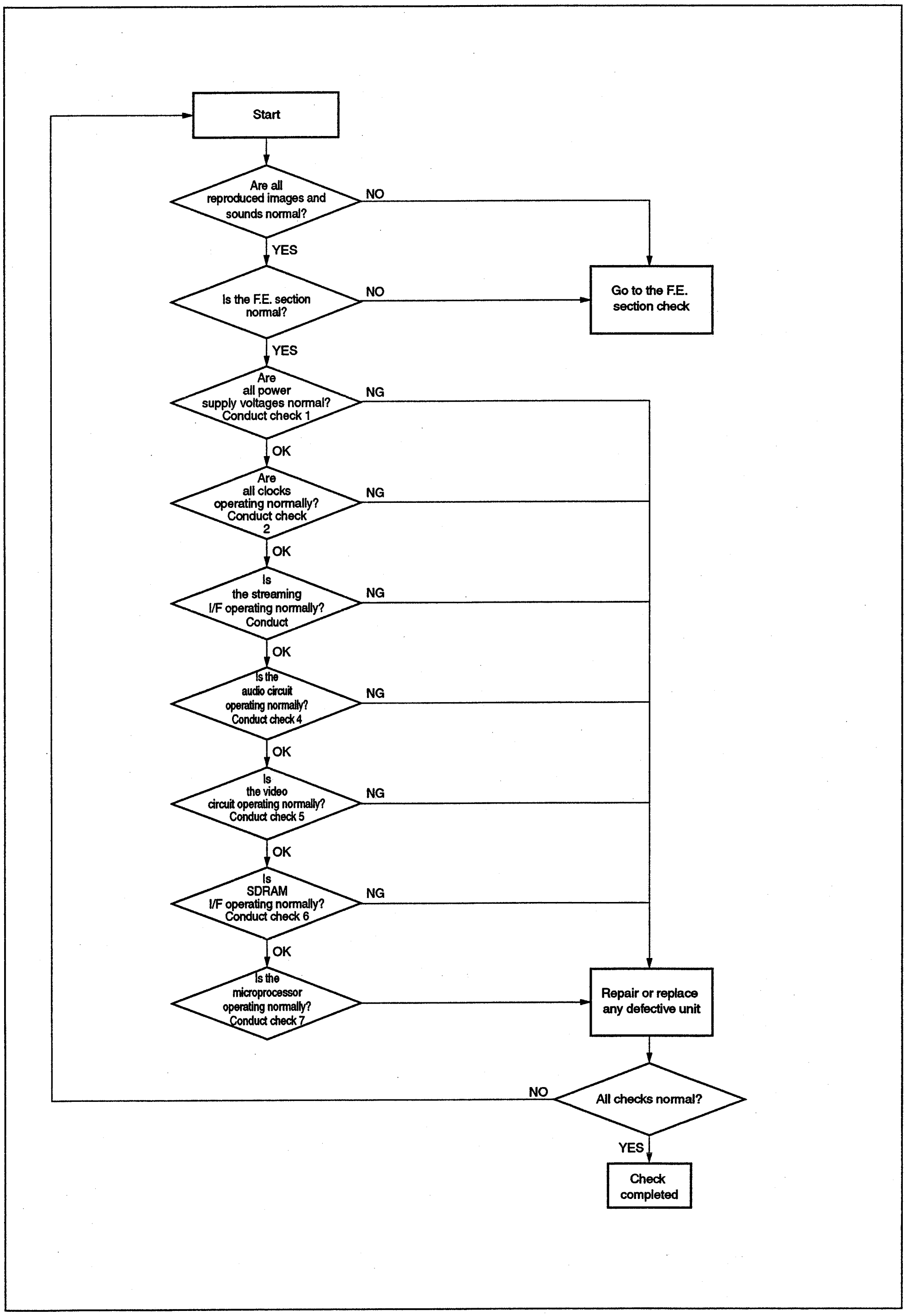
Symptoms that can occur if proper adjustments are not made: Error rate reaches 10^{-3}(10^{-4} or less under normal conditions).
The RF jitter becomes more pronounced - the RF waveform becomes deformed.
Retraction of the tracking and the servo motor, become unstable.
Cautions for performing adjustments: Do not look directly into the laser beam for any prolonged periods of time.
Procedure:

1. Replace the cable, connecting the product's main unit and the DVD mechanical module, with a 40-pin extended flexible cable (GGD1170), and turn the DVD mechanical module upside down, in order to proceed with pick-up unit adjustments.
2. Remove adhesive materials from the pick-up unit, using tweezers.
(Note) Make sure that adhesive material fragments are not scattered while removing the adhesive from the unit. Be also very careful not to exert excessive force on the actuator.
3. Connect the unit to an oscilloscope, referring to the connection diagram.
4. Turn the product power ON, and load the disk for adjustments (GGV1018).
5. Set the disk type to single-layer DVD in the front-end test mode, turn the power ON and then move the pick-up to the middle radius.
6. LD ON.
7. Close in the focus(Do not carry out 'T.Bal adjustment' and 'Tracking close'.)
8. Maximize the level by slightly turning the skew adjustment screw A, while looking at the RF waveform level on the oscilloscope.
Next, maximize the level by turning the skew adjustment screw B, slightly. Repeat this procedure three times and adjust the unit to attain a maximum level.
9. Turn the power OFF in the test mode, and eject the disk after verifying that it has stopped spinning.
10. Apply adhesive and screw lock materials, to the locations specified in the pick-up diagram (shown below).
Apply the adhesive material to secure the resin components on the pick-up chassis.
Apply the screw lock material to secure the screws on the pick-up chassis.
Do not apply any of these materials to the pick-up section or mechanical sections, which are not specified.
Keep the unit away from vibration or shock until the materials securely fix the components and screws in place.

PU diagram



● Back end section check flow chart


Start
Are all reproduced images and sounds normal?
NO
YES
Is the F.E. section normal?
NO
Go to the F.E. section check
YES
Are all power supply voltages normal? Conduct check 1
NG
OK
Are all clocks operating normally? Conduct check 2
NG
OK
Is the streaming I/F operating normally? Conduct
NG
OK
Is the audio circuit operating normally? Conduct check 4
NG
OK
Is the video circuit operating normally? Conduct check 5
NG
OK
Is SDRAM I/F operating normally? Conduct check 6
NG
OK
Is the microprocessor operating normally? Conduct check 7
Repair or replace any defective unit
NO
All checks normal?
YES
Check completed

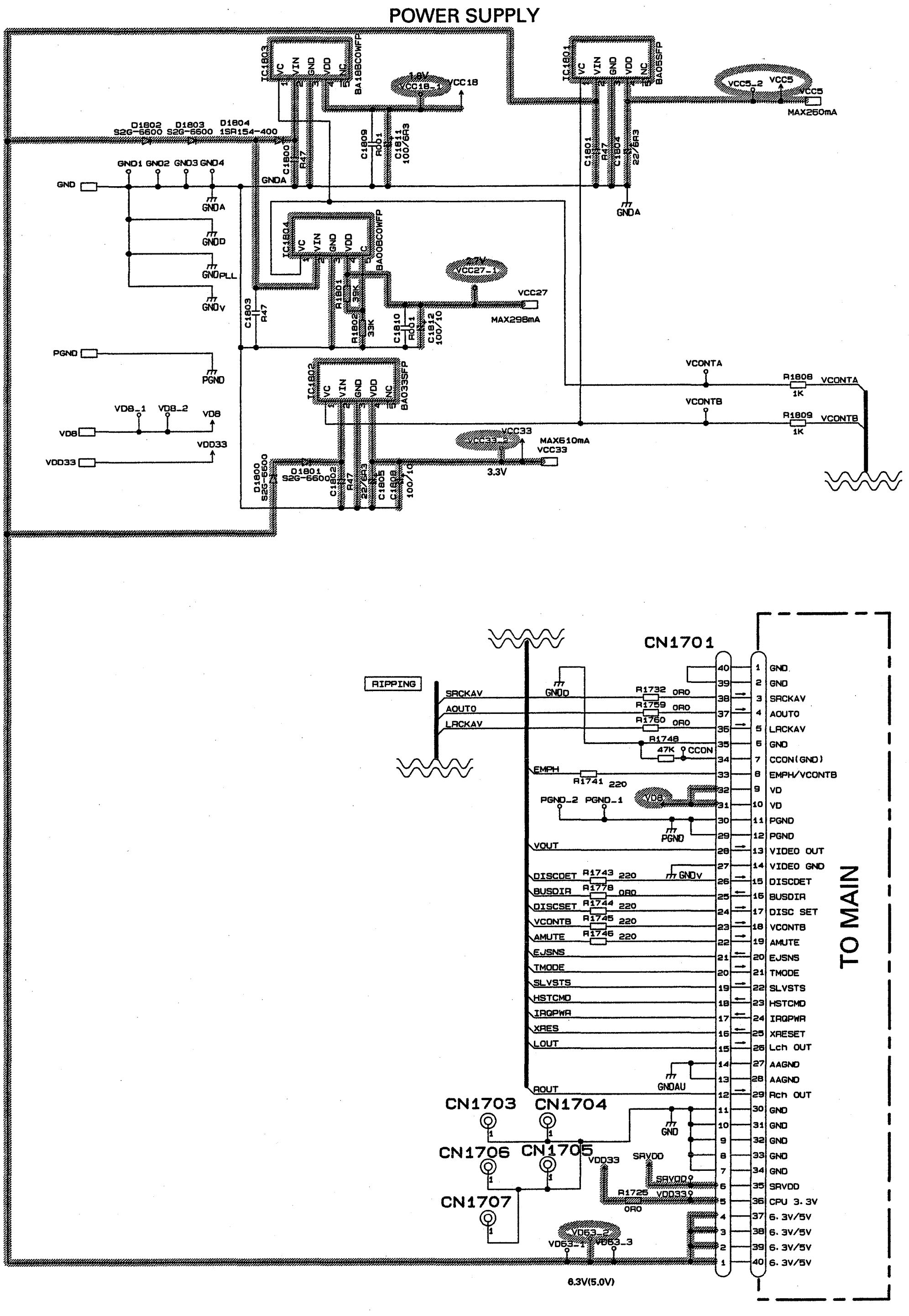
Check 1: Are all power supply voltages normal?

Reproduce DVD-REF-A1 Title 1.

Verify the voltage of the sensing pin.

If results are not satisfactory, check to see if there are any problems with the resin flux cored solder, parts and components, in the vicinity of IC1802 through 1804 (the section marked ① in the circuit diagram).

NO.	Verification location	Rated value	Unit
1	VD8-PGND	8±0.3	V
2	VD63-GND	6.3±0.3	V
3	VDD33-GND	3.3±0.3	V
4	SRVDD-GND	3.3±0.3	V
5	VCC5-GND	5±0.25	V
6	VCC33-GND	3.3±0.17	V
7	VCC27-GND	2.73±0.07	V
8	VCC18-GND	1.8±0.04	V


POWER SUPPLY
IC1803 BA18BC0WFP
IC1801 BA05SFP
IC1804 BA00BC0WFP
IC1802 BA033SFP
VC VIN GND VDD NC
D1802 S2G-6600
D1803 S2G-6600
D1804 1SR154-400
D1800 S2G-6600
D1801 S2G-6600
1.8V VCC18_1 VCC18
VCC5_2 VCC5 VCC5 MAX260mA
2.7V VCC27_1 VCC27 MAX298mA
VCC33_2 VCC33 MAX610mA VCC33 3.3V
C1800 R47
C1809 R001
C1811 100/6R3
C1801 R47
C1804 22/6R3
C1803 R47
R1801 39K
R1802 33K
C1810 R001
C1812 100/10
C1802 R47
C1805 22/6R3
C1808 100/10
GND1 GND2 GND3 GND4
GND GNDA GNDD GNDPLL GNDV
PGND PGND
VD8_1 VD8_2 VD8
VD8 VDD33
VDD33
VCONTA VCONTB
R1808 1K VCONTA
R1809 1K VCONTB
CN1701
RIPPING
SRCKAV AOUTO LRCKAV
GNDD
R1732 0R0
R1759 0R0
R1760 0R0
R1748 47K CCON
EMPH R1741 220
PGND_2 PGND_1 VD8
PGND
VOUT
DISCDET R1743 220 GNDV
BUSDIR R1778 0R0
DISCSET R1744 220
VCONTB R1745 220
AMUTE R1746 220
EJSNS
TMODE
SLVSTS
HSTCMD
IRQPWR
XRES
LOUT
ROUT GNDAU
CN1703 CN1704
CN1706 CN1705
CN1707
VDD33 SRVDD
SRVDD
R1725 0R0 VDD33
GND
VD63_2 VD63_1 VD63_3
6.3V(5.0V)
1 GND
2 GND
3 SRCKAV
4 AOUTO
5 LRCKAV
6 GND
7 CCON(GND)
8 EMPH/VCONTB
9 VD
10 VD
11 PGND
12 PGND
13 VIDEO OUT
14 VIDEO GND
15 DISCDET
16 BUSDIR
17 DISC SET
18 VCONTB
19 AMUTE
20 EJSNS
21 TMODE
22 SLVSTS
23 HSTCMD
24 IRQPWR
25 XRESET
26 Lch OUT
27 AAGND
28 AAGND
29 Rch OUT
30 GND
31 GND
32 GND
33 GND
34 GND
35 SRVDD
36 CPU 3.3V
37 6.3V/5V
38 6.3V/5V
39 6.3V/5V
40 6.3V/5V
TO MAIN

Schematic diagram ①

Check 2: Are all clocks operating normally?

Reproduce DVD-REF-A1 Title 1.

Verify the circuit described in Figure ②.

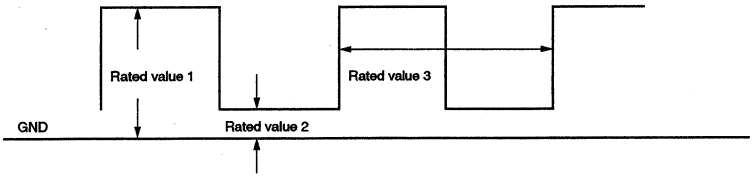
This check is the same for all DVD-V compatible modules.

Checks are to be conducted with a GND reference.

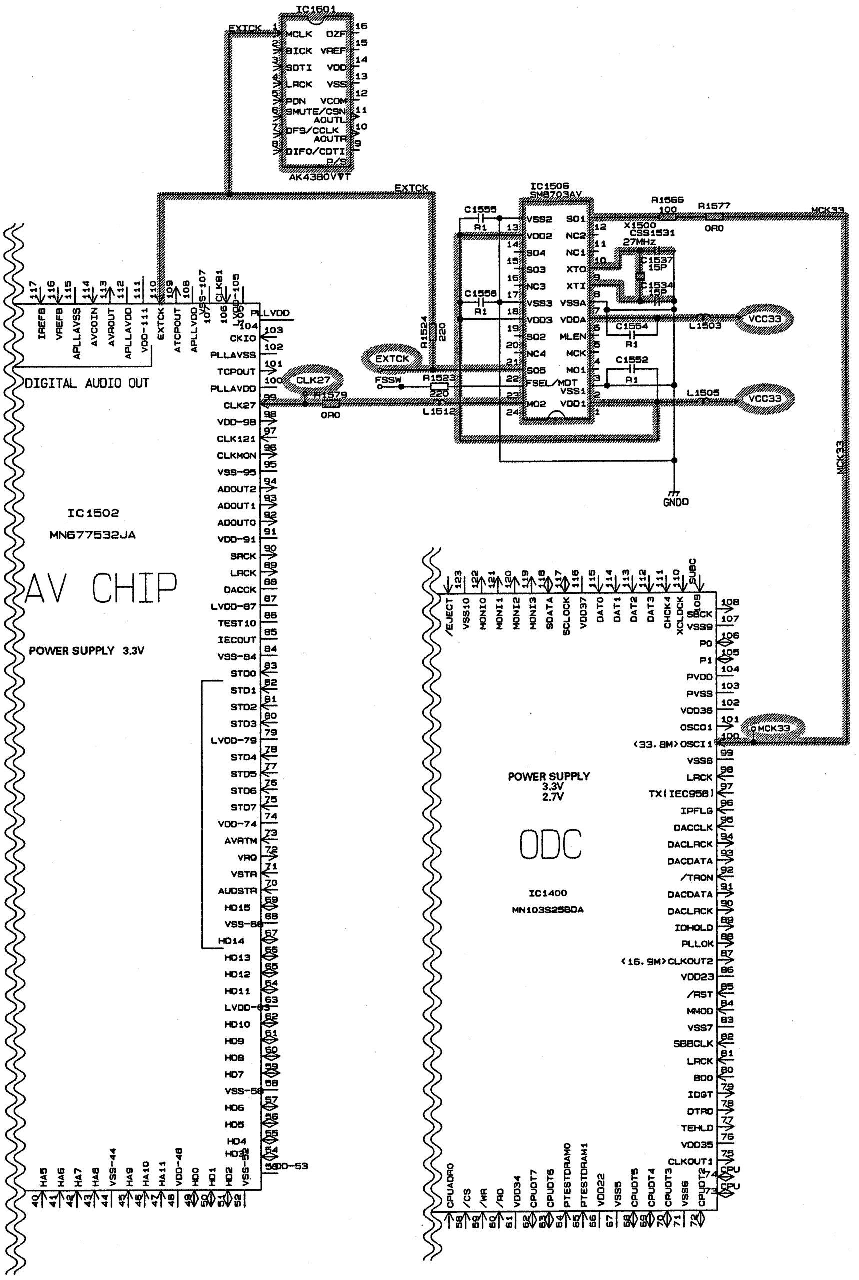
If locations listed under "verification location 2", can be verified, there will be no need to perform verifications for the locations listed under "verification location 1."

If the result is not satisfactory, check to see if there are any problems with the resin flux cored solder, parts and components, in the vicinity of IC1506 (the section marked ② in the circuit diagram).

NO.	Verification location 1 (contact measurements)	Verification location 2	Media	Rated value 1	Rated value 2	Rated value 3
1	CLK27	IC1502 99pin	ALL	2.65V~VCC33	GND~0.65V	27MHz±50ppm
2	EXTCK	IC1502 110pin IC1601 1pin	DVD	2.65V~VCC33	GND~0.65V	36.8640MHz± 100ppm
3	EXTCK	IC1502 110pin IC1601 1pin	CD	2.65V~VCC33	GND~0.65V	33.8688MHz± 100ppm
4	MCK33	IC1400 100pin	ALL	2.33~VCC33	GND~0.99V	33.8688MHz±100ppm



Clock rated values


IC1501
AK4380VVT
MCLK
BICK
SDTI
LRCK
PDN
SMUTE/CSN
DFS/CCLK
DIF0/CDTI
DZF
VREF
VDD
VSS
VCOM
AOUTL
AOUTR
P/S
EXTCK
IC1506
SM8703AV
VSS2
VDD2
SO4
SO3
NC3
VSS3
VDD3
SO2
NC4
SO5
FSEL/MDT
MO2
SO1
NC2
NC1
XTO
XTI
VSSA
VDDA
MLEN
MCK
MO1
VSS1
VDD1
C1555
C1556
R1
R1566
100
R1577
0R0
MCK33
X1500
CSS1531
27MHZ
C1537
15P
C1534
15P
C1554
C1552
L1503
L1505
VCC33
GNDD
R1524
220
EXTCK
FSSW
R1523
220
L1512
CLK27
R1579
0R0
DIGITAL AUDIO OUT
IC1502
MN677532JA
AV CHIP
POWER SUPPLY 3.3V
IREFB
VREFB
APLLAVSS
AVCOIN
AVROUT
APLLAVDD
VDD-111
EXTCK
ATCPOUT
APLLVDD
VSS-107
CLK81
VDD-105
PLLVDD
CKIO
PLLAVSS
TCPOUT
PLLAVDD
CLK27
VDD-98
CLK121
CLKMON
VSS-95
ADOUT2
ADOUT1
ADOUT0
VDD-91
SRCK
LRCK
DACCK
LVDD-87
TEST10
IECOUT
VSS-84
STD0
STD1
STD2
STD3
LVDD-79
STD4
STD5
STD6
STD7
VDD-74
AVRTM
VRQ
VSTR
AUDSTR
HD15
VSS-68
HD14
HD13
HD12
HD11
LVDD-63
HD10
HD9
HD8
HD7
VSS-58
HD6
HD5
HD4
HD3
VDD-53
HA5
HA6
HA7
HA8
VSS-44
HA9
HA10
HA11
VDD-48
HD0
HD1
HD2
VSS-52
/EJECT
VSS10
MONI0
MONI1
MONI2
MONI3
SDATA
SCLOCK
VDD37
DAT0
DAT1
DAT2
DAT3
CHCK4
XCLOCK
SUBC
SBCK
VSS9
P0
P1
PVDD
PVSS
VDD36
OSCO1
<33.8M>OSCI1
VSS8
LRCK
TX(IEC958)
IPFLG
DACCLK
DACLRCK
DACDATA
/TRON
DACDATA
DACLRCK
IDHOLD
PLLOK
<16.9M>CLKOUT2
VDD23
/RST
MMOD
VSS7
SBBCLK
LRCK
BDO
IDGT
DTRD
TEHLD
VDD35
CLKOUT1
POWER SUPPLY
3.3V
2.7V
ODC
IC1400
MN103S258DA
CPUADR0
/CS
/WR
/RD
VDD34
CPUDT7
CPUDT6
PTESTDRAM0
PTESTDRAM1
VDD22
VSS5
CPUDT5
CPUDT4
CPUDT3
VSS6
CPUDT2
MCK33

Schematic diagram ②

Check 3: Is the streaming I/F operating normally?

Reproduce DVD-REF-A1 Title 1.

Verify the circuit described in Figure ③.

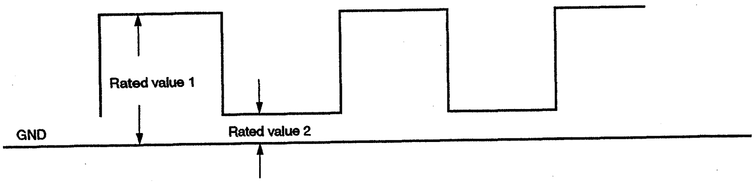
This check is the same for all DVD-V compatible modules.

Checks are to be conducted with a GND reference.

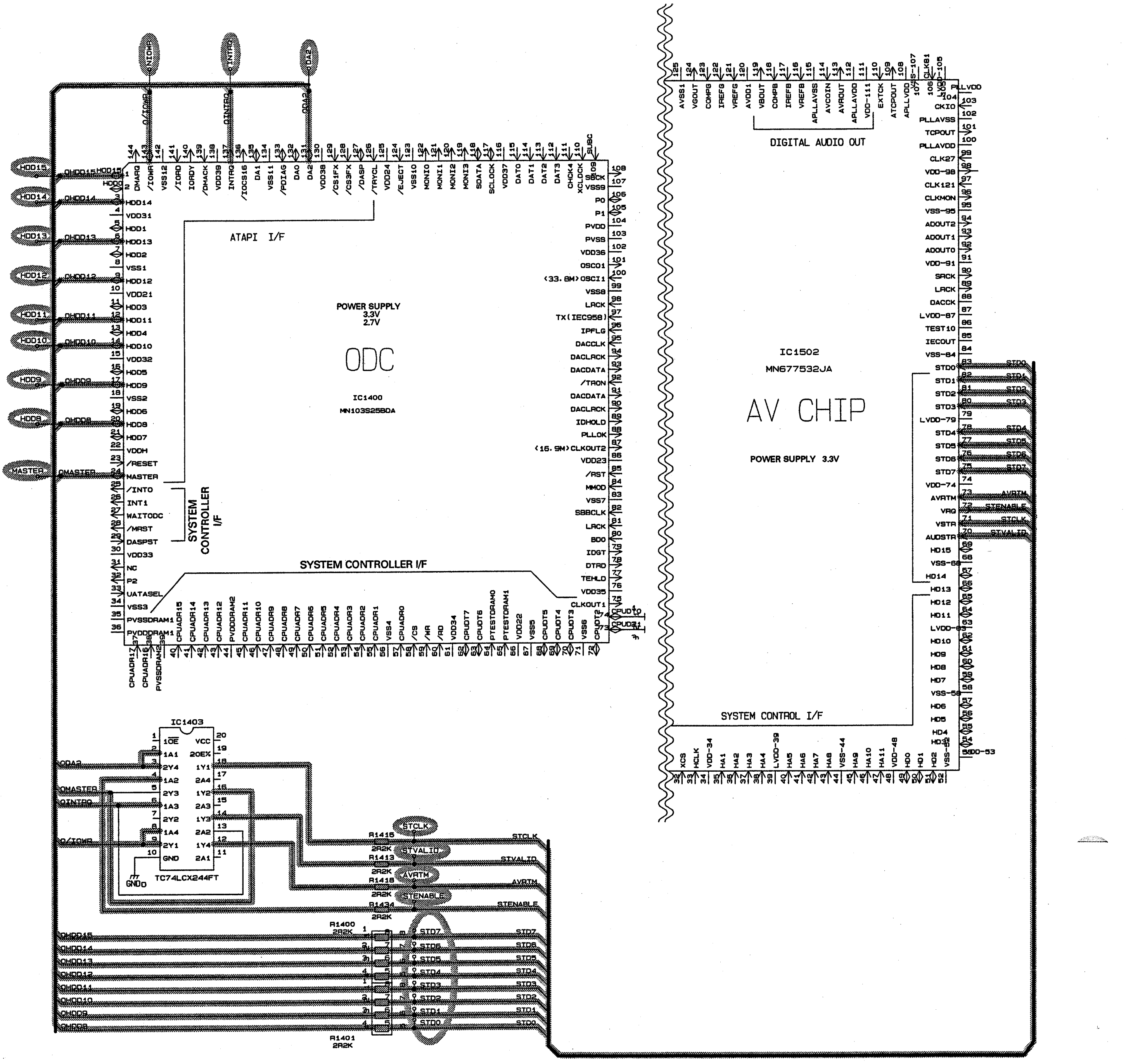
If the locations listed under "verification location 2" can be verified, then there is no need to conduct verifications for the locations listed under "verification location 1."

If the result is not satisfactory, check to see if there are any problems with the resin flux cored solder, parts and components, in areas where a problem occurs, for the overall sequence of "output " input" of the checked location.

NO.	Verification location 1 (contact measurements)	Verification location 2	Verification Media	Rated value 1	Rated value 2	Reference waveform	Others
1	STD0	IC1502 83pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD8 at R1401
2	STD1	IC1502 82pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD9 at R1401
3	STD2	IC1502 81pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD10 at R1401
4	STD3	IC1502 80pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD11 at R1401
5	STD4	IC1502 78pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD12 at R1400
6	STD5	IC1502 77pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD13 at R1400
7	STD6	IC1502 76pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD14 at R1400
8	STD7	IC1502 75pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD15 at R1400
9	AVRTM	IC1502 73pin	DVD	2V~VCC33	GND~0.8V	Waveform 2	Line name O/IOWR at IC1403
10	STCLK	IC1502 71pin	DVD	2V~VCC33	GND~0.8V	Waveform 2	Line name ODA2 at IC1403
11	STVALID	IC1502 70pin	DVD	2V~VCC33	GND~0.8V	Waveform 2	Line name O/INTRO at IC1403
12	MASTER	IC1400 24pin	DVD	2V~VCC33	GND~0.8V	Waveform 2	Line name STENABLE at IC1403



Streaming I/F rated value

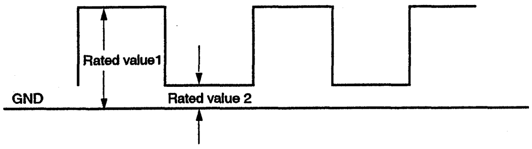

ODC
IC1400
MN103S25BDA
POWER SUPPLY 3.3V 2.7V
ATAPI I/F
SYSTEM CONTROLLER I/F
SYSTEM CONTROLLER I/F
AV CHIP
IC1502
MN677532JA
POWER SUPPLY 3.3V
DIGITAL AUDIO OUT
SYSTEM CONTROL I/F
IC1403
TC74LCX244FT
GNDD
(33.8M)OSCI1
(16.9M)CLKOUT2
TX(IEC958)
HDD15
HDD14
HDD13
HDD12
HDD11
HDD10
HDD9
HDD8
MASTER
O/IOWR
OINTRQ
ODA2
OHDD15
OHDD14
OHDD13
OHDD12
OHDD11
OHDD10
OHDD9
OHDD8
OMASTER
OINTRQ
ODA2
O/IOWR
STCLK
STVALID
AVRTM
STENABLE
STD0
STD1
STD2
STD3
STD4
STD5
STD6
STD7
R1416
R1413
R1418
R1434
2R2K
R1400
2R2K
R1401
2R2K

Schematic diagram ③

Check 4: Is the audio circuit operating normally?

Reproduce DVD-REF-A1 Title 2 Chapter (48k/16-bit/1 kHz/0dB).
This check is the same for all DVD-V compatible modules.
Checks are to be conducted using GNDAU1 (sensing pins) as a reference.
If the locations, listed under "verification location 2", can be verified, there is no need to conduct verifications for the locations listed under "verification location 1."
If the result is not satisfactory, check to see if there are any problems with the resin flux cored solder, parts and components, in the vicinity of the main components (the section marked ④ in the circuit diagram circuit diagram).

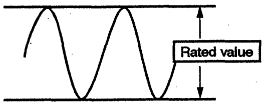
NO.	Verification location 1	Verification location 2	Rated value 1	Rated value 2	Reference waveform
1	AOUT0	IC1601 pin-3	2.2V and over	0.8V and lower	Waveform 3
2	SRCKAV	IC1601 pin-2 For	2.2V and over	0.8V and lower	Waveform 3
4	LRCKAV	IC1601 pin-4	2.2V and over	0.8V and lower	Waveform 3



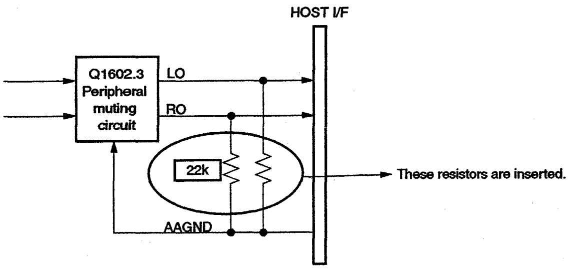
Three serial output rated values

Checks are conducted with the measurement circuit below.

NO.	Verification location 1	Verification location 2	Rated value	Reference waveform
4	LO	CN1701 15pin	1120±150mV	Waveform 4
5	RO	CN1702 12pin	1120±150mV	Waveform 4

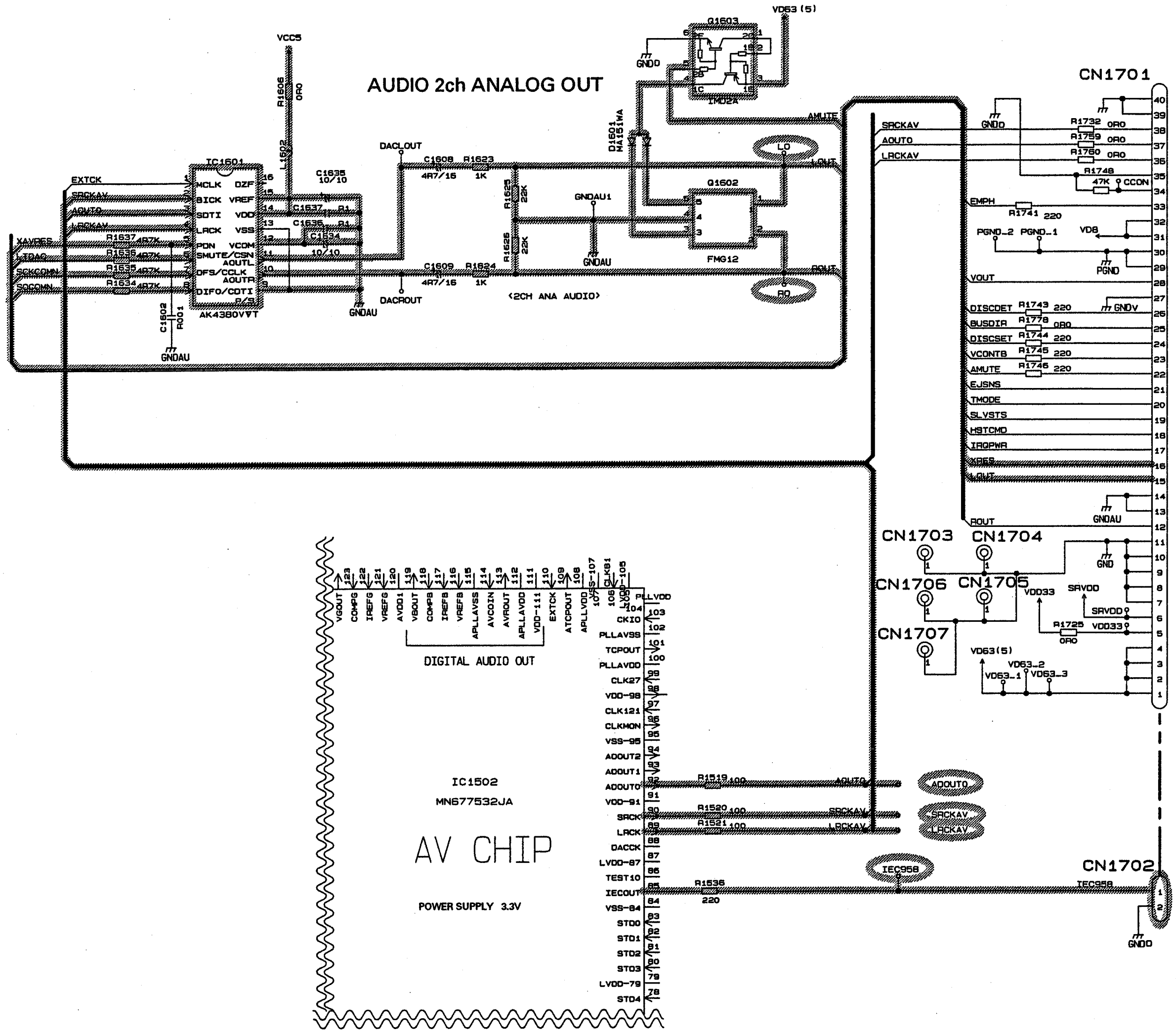


Analog audio outputs (LO and RO) rated values


HOST I/F
Q1602.3 Peripheral muting circuit
LO
RO
22k
AAGND
These resistors are inserted.

LO and RO output measurement circuit

NO.	Verification location 1	Verification location 2	Rated value 1	Rated value 2	Reference waveform
6	IEC958	CN1702 1pin	2.2V and over	0.8V and lower	Waveform 5


AUDIO 2ch ANALOG OUT
VCC5
R1606
0R0
L1602
IC1601
AK4380VVT
MCLK
BICK
SDTI
LRCK
PDN
SMUTE/CSN
DFS/CCLK
DIFO/CDTI
DZF
VREF
VDD
VSS
VCOM
AOUTL
AOUTR
P/S
EXTCK
SRCKAV
AOUTO
LRCKAV
XAVRES
LTDAO
SCKCOMN
SOCOMN
R1637 4R7K
R1636 4R7K
R1635 4R7K
R1634 4R7K
C1602
R001
GNDAU
C1635 10/10
C1637
C1636
C1634
10/10
R1
DACLOUT
DACROUT
C1608 4R7/16
R1623 1K
C1609 4R7/16
R1624 1K
R1625 22K
R1626 22K
GNDAU1
GNDAU
(2CH ANA AUDIO)
Q1602
FMG12
Q1603
IMD2A
VD63 (5)
GNDD
D1601
MA151WA
AMUTE
LOUT
ROUT
LO
RO
CN1701
SRCKAV
AOUTO
LRCKAV
R1732 0R0
R1759 0R0
R1760 0R0
R1748
47K
CCON
EMPH
R1741 220
PGND_2
PGND_1
VD8
PGND
VOUT
DISCDET
R1743 220
GNDV
BUSDIR
R1778 0R0
DISCSET
R1744 220
VCONTB
R1745 220
AMUTE
R1746 220
EJSNS
TMODE
SLVSTS
MSTCMD
IRGPWR
XRES
LOUT
ROUT
GNDAU
GND
CN1703
CN1704
CN1706
CN1705
CN1707
VDD33
SRVDD
R1725 0R0
VD63(5)
VD63_2
VD63_1
VD63_3
IC1502
MN677532JA
AV CHIP
POWER SUPPLY 3.3V
DIGITAL AUDIO OUT
VSOUT
COMPG
IREFG
VREFG
AVDD1
VBOUT
COMPB
IREFB
VREFB
APLLAVSS
AVCOIN
AVROUT
APLLAVDD
VDD-111
EXTCK
ATCPOUT
APLLVDD
VSS-107
CLK81
PLLVDD
CKIO
PLLAVSS
TCPOUT
PLLAVDD
CLK27
VDD-98
CLK121
CLKMON
VSS-95
ADOUT2
ADOUT1
ADOUT0
VDD-91
SRCK
LRCK
DACCK
LVDD-87
TEST10
IECOUT
VSS-84
STD0
STD1
STD2
STD3
LVDD-79
STD4
R1519 100
R1520 100
R1521 100
R1536 220
ADOUT0
SRCKAV
LRCKAV
IEC958
CN1702
GNDD

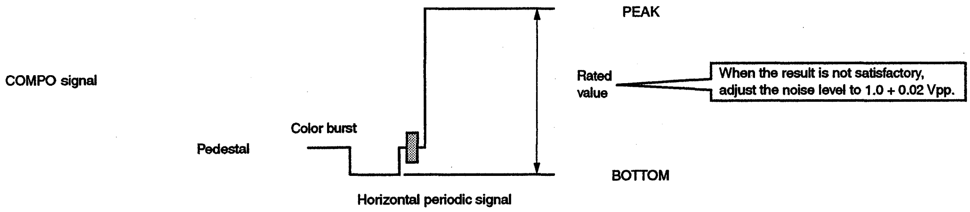
Schematic diagram ④

Check 5: Is the video circuit operated normally?

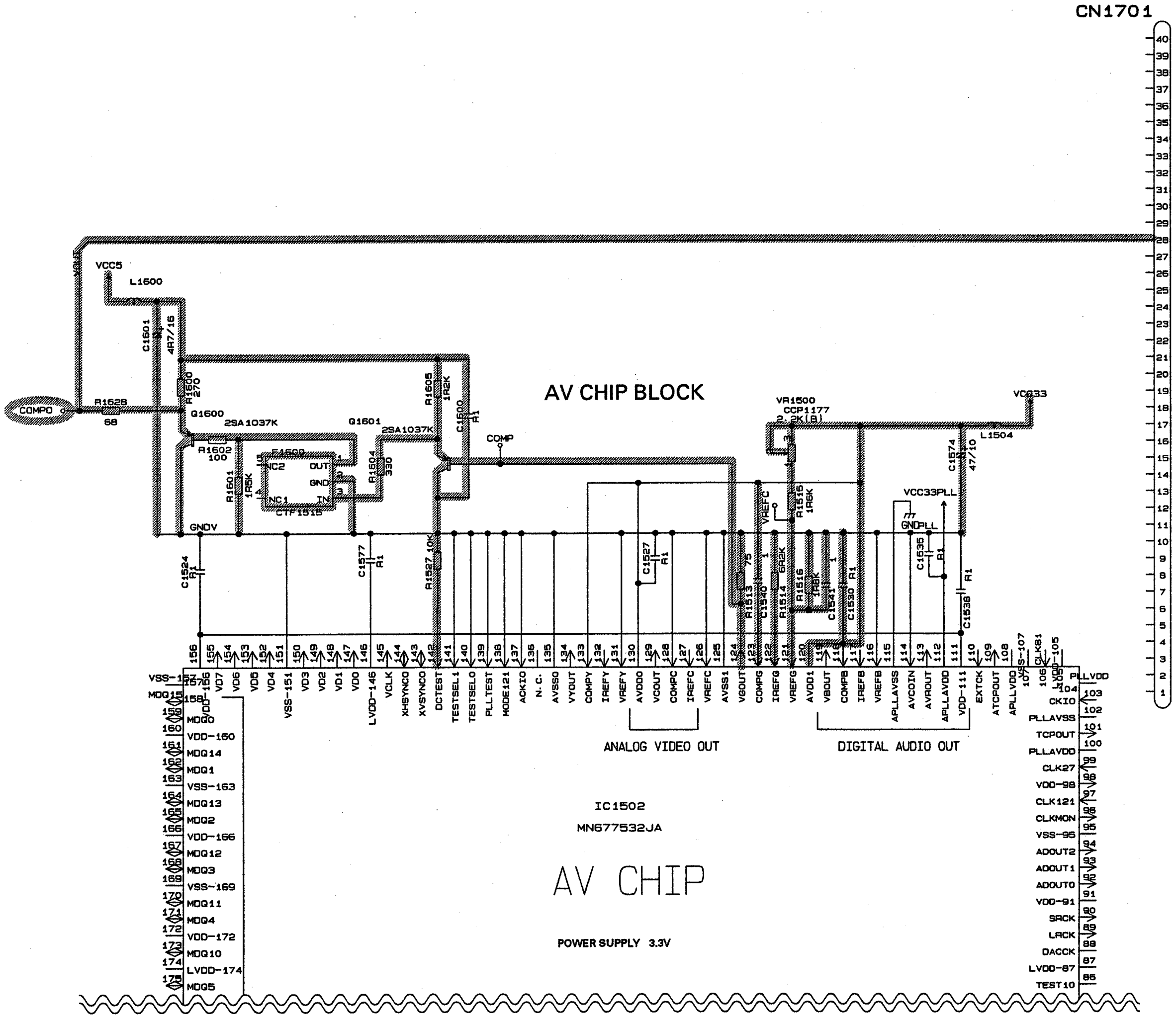
Reproduce DVD-REF-A1 Title 2 Chapters (White 100IRE).
Monitor the output with the oscilloscope, by setting the COMPO signal to a GND reference.
Set the Trigger mode to the TV trigger, and the Trigger line to line-150.

NO.	Verification location (sensing pin)	Rated value	Reference waveform
1	COMPO	1.0±0.02Vpp	Waveform 6

If the result is not satisfactory, check to see if there are any problems with resin flux cored solder, parts and components, in the vicinity of line-150 (the section marked ⑤ in the circuit diagram) and peripheral components


PEAK
COMPO signal
Rated value
When the result is not satisfactory, adjust the noise level to 1.0 + 0.02 Vpp.
Color burst
Pedestal
BOTTOM
Horizontal periodic signal

Composite signal 100% output waveform

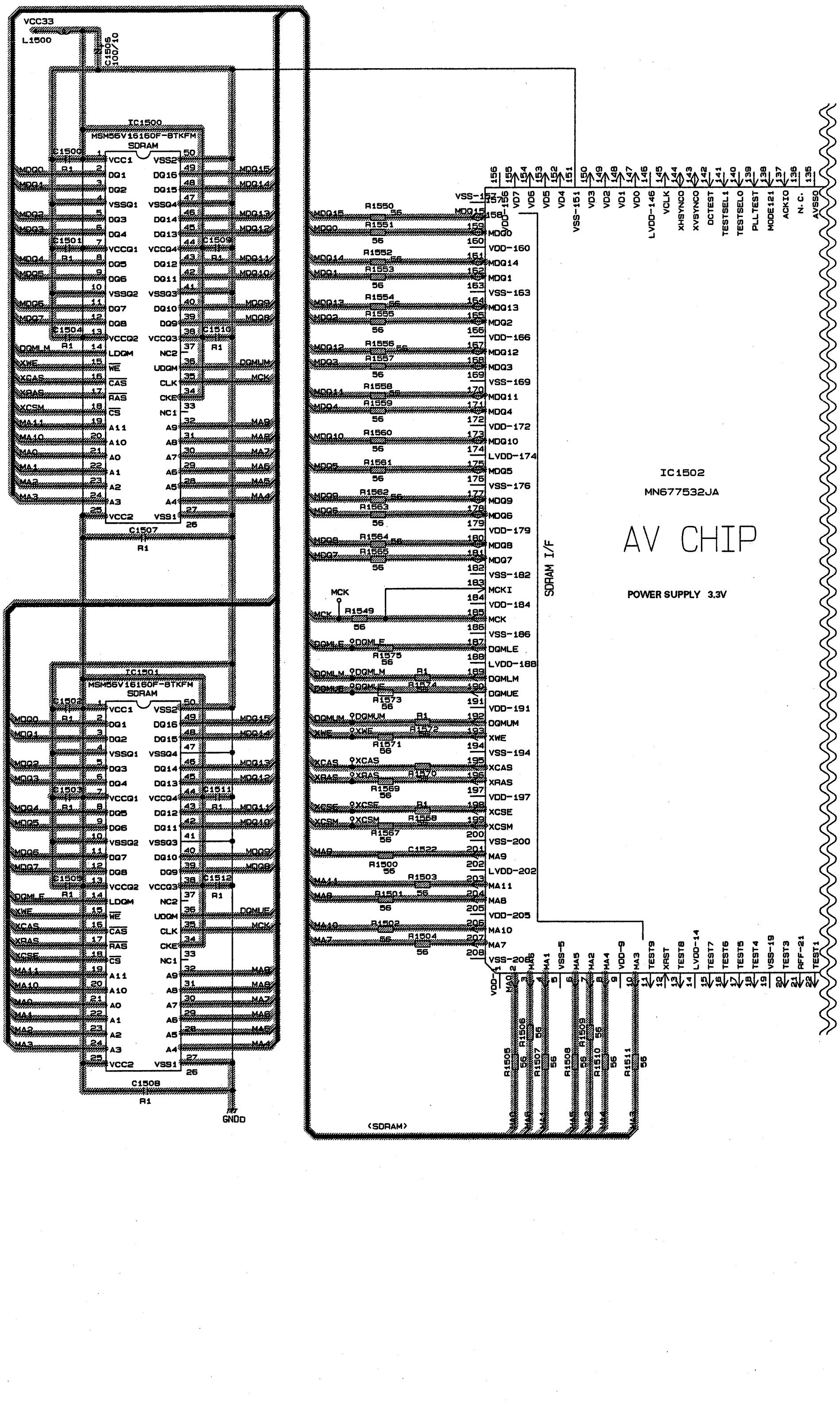

CN1701
AV CHIP BLOCK
VCC5
L1600
C1601
4R7/16
R1600
270
COMPO
R1628
68
Q1600
2SA1037K
R1602
100
R1601
1R5K
F1500
NC2
OUT
GND
IN
NC1
CTF1515
Q1601
2SA1037K
R1604
330
R1605
1R2K
C1600
R1
COMP
GNDV
C1524
R1
C1577
R1
R1527 10K
C1527
R1
VR1500
CCP1177
2.2K(B)
VREFC
R1516
1R6K
R1513
75
C1540
R1514
6R2K
R1515
1R6K
C1541
C1530
R1
VCC33
L1504
C1574
47/10
VCC33PLL
GNDPLL
C1535
R1
C1538
R1
ANALOG VIDEO OUT
DIGITAL AUDIO OUT
IC1502
MN677532JA
AV CHIP
POWER SUPPLY 3.3V
VSS-157
MDQ15
MDQ0
VDD-160
MDQ14
MDQ1
VSS-163
MDQ13
MDQ2
VDD-166
MDQ12
MDQ3
VSS-169
MDQ11
MDQ4
VDD-172
MDQ10
LVDD-174
MDQ5
VD7
VD6
VD5
VD4
VSS-151
VD3
VD2
VD1
VD0
LVDD-146
VCLK
XHSYNCO
XVSYNCO
DCTEST
TESTSEL1
TESTSEL0
PLLTEST
MODE121
ACKIO
N.C.
AVSS0
VYOUT
COMPY
IREFY
VREFY
AVDD0
VCOUT
COMPC
IREFC
VREFC
AVSS1
VGOUT
COMPG
IREFG
VREFG
AVDD1
VBOUT
COMPB
IREFB
VREFB
APLLAVSS
AVCOIN
AVROUT
APLLAVDD
VDD-111
EXTCK
ATCPOUT
APLLVDD
VSS-107
CLK81
LVDD-105
PLLVDD
CKIO
PLLAVSS
TCPOUT
PLLAVDD
CLK27
VDD-98
CLK121
CLKMON
VSS-95
ADOUT2
ADOUT1
ADOUT0
VDD-91
SRCK
LRCK
DACCK
LVDD-87
TEST10

Schematic diagram ⑤

Check 6: Is SDRAM I/F operating normally?

Reproduce DVD-REF-A1 Title 1.
Verify the circuit described in Figure ⑥.
This check is the same for all DVD-V compatible modules.
Check the conductivity of both the "Verification location 1" and the "Verification location2."
If the result is not satisfactory, check to see if there are any problems with the resin flux cored solder, parts and components, in areas where a problem occurs, for the overall sequence of "output " input" of the checked location.

NO.	Signal name	Verification location 1	Verification location 2	Rated value	Others
1	MA0	IC1500/1501 21pin	IC1502 2pin	56Ω ± 5%	Same for both IC1500 and IC1501.
2	MA1	IC1500/1501 22pin	IC1502 4pin	56Ω ± 5%	Same for both IC1500 and IC1501.
3	MA2	IC1500/1501 23pin	IC1502 7pin	56Ω ± 5%	Same for both IC1500 and IC1501.
4	MA3	IC1500/1501 24pin	IC1502 10pin	56Ω ± 5%	Same for both IC1500 and IC1501.
5	MA4	IC1500/1501 27pin	IC1502 8pin	56Ω ± 5%	Same for both IC1500 and IC1501.
6	MA5	IC1500/1501 28pin	IC1502 6pin	56Ω ± 5%	Same for both IC1500 and IC1501.
7	MA6	IC1500/1501 29pin	IC1502 3pin	56Ω ± 5%	Same for both IC1500 and IC1501.
8	MA7	IC1500/1501 30pin	IC1502 207pin	56Ω ± 5%	Same for both IC1500 and IC1501.
9	MA8	IC1500/1501 31pin	IC1502 204pin	56Ω ± 5%	Same for both IC1500 and IC1501.
10	MA9	IC1500/1501 32pin	IC1502 201pin	56Ω ± 5%	Same for both IC1500 and IC1501.
11	MA10	IC1500/1501 20pin	IC1502 206pin	56Ω ± 5%	Same for both IC1500 and IC1501.
12	MA11	IC1500/1501 19pin	IC1502 203pin	56Ω ± 5%	Same for both IC1500 and IC1501.
13	MDQ0	IC1500/1501 2pin	IC1502 159pin	56Ω ± 5%	Same for both IC1500 and IC1501.
14	MDQ1	IC1500/1501 3pin	IC1502 162pin	56Ω ± 5%	Same for both IC1500 and IC1501.
15	MDQ2	IC1500/1501 5pin	IC1502 165pin	56Ω ± 5%	Same for both IC1500 and IC1501.
16	MDQ3	IC1500/1501 6pin	IC1502 168pin	56Ω ± 5%	Same for both IC1500 and IC1501.
17	MDQ4	IC1500/1501 8pin	IC1502 171pin	56Ω ± 5%	Same for both IC1500 and IC1501.
18	MDQ5	IC1500/1501 9pin	IC1502 175pin	56Ω ± 5%	Same for both IC1500 and IC1501.
19	MDQ6	IC1500/1501 11pin	IC1502 178pin	56Ω ± 5%	Same for both IC1500 and IC1501.
20	MDQ7	IC1500/1501 12pin	IC1502 181pin	56Ω ± 5%	Same for both IC1500 and IC1501.
21	MDQ8	IC1500/1501 39pin	IC1502 180pin	56Ω ± 5%	Same for both IC1500 and IC1501.
22	MDQ9	IC1500/1501 40pin	IC1502 177pin	56Ω ± 5%	Same for both IC1500 and IC1501.
23	MDQ10	IC1500/1501 42pin	IC1502 173pin	56Ω ± 5%	Same for both IC1500 and IC1501.
24	MDQ11	IC1500/1501 43pin	IC1502 170pin	56Ω ± 5%	Same for both IC1500 and IC1501.
25	MDQ12	IC1500/1501 45pin	IC1502 167pin	56Ω ± 5%	Same for both IC1500 and IC1501.
26	MDQ13	IC1500/1501 46pin	IC1502 164pin	56Ω ± 5%	Same for both IC1500 and IC1501.
27	MDQ14	IC1500/1501 48pin	IC1502 161pin	56Ω ± 5%	Same for both IC1500 and IC1501.
28	MDQ15	IC1500/1501 49pin	IC1502 158pin	56Ω ± 5%	Same for both IC1500 and IC1501.
29	MCK	IC1500/1501 35pin	IC1502 185pin	56Ω ± 5%	Same for both IC1500 and IC1501.
30	XWE	IC1500/1501 15pin	IC1502 193pin	56Ω ± 5%	Same for both IC1500 and IC1501.
31	XCAS	IC1500/1501 16pin	IC1502 195pin	56Ω ± 5%	Same for both IC1500 and IC1501.
32	XRAS	IC1500/1501 17pin	IC1502 196pin	56Ω ± 5%	Same for both IC1500 and IC1501.
33	XCSM	IC1500 18pin	IC1502 199pin	56Ω ± 5%	Same for both IC1500 and IC1501.
34	XCSE	IC1501 18pin	IC1502 198pin	56Ω ± 5%	
35	DQMUM	IC1500 14pin	IC1502 192pin	56Ω ± 5%	
36	DQMLM	IC1500 36pin	IC1502 189pin	56Ω ± 5%	
37	DQMUE	IC1500 14pin	IC1502 190pin	56Ω ± 5%	
38	DQMLE	IC1500 36pin	IC1502 187pin	56Ω ± 5%	

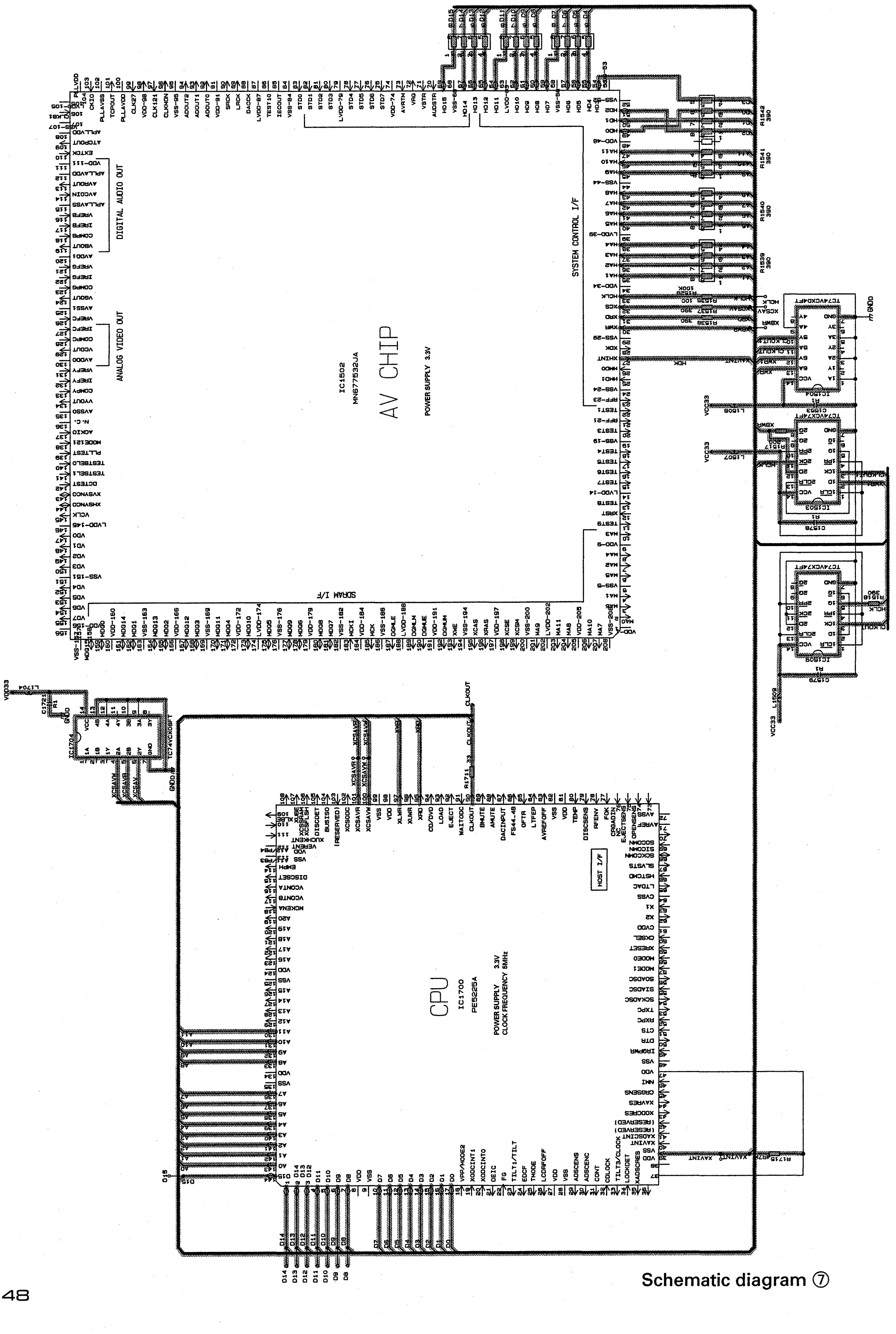

VCC33
L1500
C1506 100/10
IC1500
MSM56V16160F-8TKFM
SDRAM
IC1501
MSM56V16160F-8TKFM
SDRAM
VCC1
VSS2
DQ1
DQ16
DQ2
DQ15
VSSQ1
VSSQ4
DQ3
DQ14
DQ4
DQ13
VCCQ1
VCCQ4
DQ5
DQ12
DQ6
DQ11
VSSQ2
VSSQ3
DQ7
DQ10
DQ8
DQ9
VCCQ2
VCCQ3
LDQM
NC2
WE
UDQM
CAS
CLK
RAS
CKE
CS
NC1
A11
A9
A10
A8
A0
A7
A1
A6
A2
A5
A3
A4
VCC2
VSS1
C1500
C1501
C1502
C1503
C1504
C1505
C1507
C1508
C1509
C1510
C1511
C1512
R1
MDQ0
MDQ1
MDQ2
MDQ3
MDQ4
MDQ5
MDQ6
MDQ7
MDQ8
MDQ9
MDQ10
MDQ11
MDQ12
MDQ13
MDQ14
MDQ15
DQMLM
DQMLE
DQMUM
DQMUE
XWE
XCAS
XRAS
XCSM
XCSE
MCK
MCKI
MA0
MA1
MA2
MA3
MA4
MA5
MA6
MA7
MA8
MA9
MA10
MA11
GNDD
R1500
R1501
R1502
R1503
R1504
R1505
R1506
R1507
R1508
R1509
R1510
R1511
R1549
R1550
R1551
R1552
R1553
R1554
R1555
R1556
R1557
R1558
R1559
R1560
R1561
R1562
R1563
R1564
R1565
R1567
R1568
R1569
R1570
R1571
R1572
R1573
R1574
R1575
C1522
56
<SDRAM>
IC1502
MN677532JA
AV CHIP
POWER SUPPLY 3.3V
SDRAM I/F
VSS-157
VDD-156
VD7
VD6
VD5
VD4
VSS-151
VD3
VD2
VD1
VD0
LVDD-146
VCLK
XHSYNCO
XVSYNCO
DCTEST
TESTSEL1
TESTSEL0
PLLTEST
MODE121
ACKIO
N.C.
AVSS0
VDD-160
VSS-163
VDD-166
VSS-169
VDD-172
LVDD-174
VSS-176
VDD-179
VSS-182
VDD-184
VSS-186
LVDD-188
VDD-191
VSS-194
VDD-197
VSS-200
LVDD-202
VDD-205
VSS-208
VDD-1
VSS-5
VDD-9
TEST9
XRST
TEST8
LVDD-14
TEST7
TEST6
TEST5
TEST4
VSS-19
TEST3
RFF-21
TEST1

Schematic diagram ⑥

Check 7: Is the microprocessor operating normally?

Verify the circuit described in Figure ⑦.
This check is the same for all DVD-V compatible modules.
Check the conductivity of both the "Verification location 1" and the "Verification location2."
If the result is not satisfactory, check to see if there are any problems with the resin flux cored solder, parts and components, in areas where a problem occurs, for the overall sequence of "output – input" of the checked location.

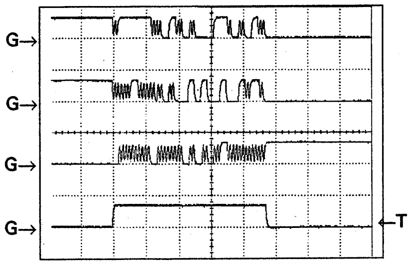
NO.	Signal name	Verification location 1	Verification location 2	Verification Media	Rated value	Others
1	A1	IC1700 142pin	IC1502 35pin	ALL	390Ω ± 5%	
2	A2	IC1700 141pin	IC1502 36pin	ALL	390Ω ± 5%	
3	A3	IC1700 140pin	IC1502 37pin	ALL	390Ω ± 5%	
4	A4	IC1700 139pin	IC1502 38pin	ALL	390Ω ± 5%	
5	A5	IC1700 138pin	IC1502 40pin	ALL	390Ω ± 5%	
6	A6	IC1700 137pin	IC1502 41pin	ALL	390Ω ± 5%	
7	A7	IC1700 136pin	IC1502 42pin	ALL	390Ω ± 5%	
8	A8	IC1700 133pin	IC1502 43pin	ALL	390Ω ± 5%	
9	A9	IC1700 132pin	IC1502 45pin	ALL	390Ω ± 5%	
10	A10	IC1700 131pin	IC1502 46pin	ALL	390Ω ± 5%	
11	A11	IC1700 130pin	IC1502 47pin	ALL	390Ω ± 5%	
12	D0	IC1700 17pin	IC1502 49pin	ALL	390Ω ± 5%	
13	D1	IC1700 16pin	IC1502 50pin	ALL	390Ω ± 5%	
14	D2	IC1700 15pin	IC1502 51pin	ALL	390Ω ± 5%	
15	D3	IC1700 14pin	IC1502 54pin	ALL	390Ω ± 5%	
16	D4	IC1700 13pin	IC1502 55pin	ALL	390Ω ± 5%	
17	D5	IC1700 12pin	IC1502 56pin	ALL	390Ω ± 5%	
18	D6	IC1700 11pin	IC1502 57pin	ALL	390Ω ± 5%	
19	D7	IC1700 10pin	IC1502 59pin	ALL	390Ω ± 5%	
20	D8	IC1700 7pin	IC1502 60pin	ALL	390Ω ± 5%	
21	D9	IC1700 6pin	IC1502 61pin	ALL	390Ω ± 5%	
22	D10	IC1700 5pin	IC1502 62pin	ALL	390Ω ± 5%	
23	D11	IC1700 4pin	IC1502 64pin	ALL	390Ω ± 5%	
24	D12	IC1700 3pin	IC1502 65pin	ALL	390Ω ± 5%	
25	D13	IC1700 2pin	IC1502 66pin	ALL	390Ω ± 5%	
26	D14	IC1700 1pin	IC1502 67pin	ALL	390Ω ± 5%	
27	D15	IC1700 144pin	IC1502 69pin	ALL	390Ω ± 5%	
28	XCSAVR	IC1700 101pin	IC1704 5pin	ALL	0Ω	
29	XCSAVW	IC1700 100pin	IC1704 4pin	ALL	0Ω	
30	XCSAV	IC1704 6pin	IC1502 32pin	ALL	390Ω ± 5%	
31	XAVINT	IC1700 39pin	IC1502 27pin	ALL	0Ω	
32	XRD	IC1700 95pin	IC1502 31pin	ALL	390Ω ± 5%	
33	CLKOUT	IC1700 90pin	IC1509 3pin	ALL	33Ω	Dividing circuit For verification location 1, include also IC1054 pin-11
34	HCLK	IC1509 5pin	IC1502 33pin	ALL	200Ω ± 5%	
35	XWR	IC1700 97pin	IC1504 13pin	ALL	0Ω	
36	XBWR	IC1503 8pin	IC1502 30pin	ALL	200Ω ± 5%	


AV CHIP
IC1502
MN677532JA
POWER SUPPLY 3.3V
DIGITAL AUDIO OUT
ANALOG VIDEO OUT
SYSTEM CONTROL I/F
SDRAM I/F
CPU
IC1700
PE5225A
POWER SUPPLY 3.3V
CLOCK FREQUENCY 5MHz
HOST I/F
IC1704
TC74VCX08FT
IC1504
TC74VCX04FT
IC1503
TC74VCX74FT
IC1505
TC74VCX74FT
R1539
390
R1540
390
R1541
390
R1542
390
VCC33
CLKOUT
XCSAVR
XCSAVW
XCSAV
HCLK
XBWR
XAVINT
L1508
L1507
L1509
L1704
C1578
C1579
C1721
R1711 33
R1715
GND
D14
D13
D12
D11
D10
D9
D8

Schematic diagram ⑦

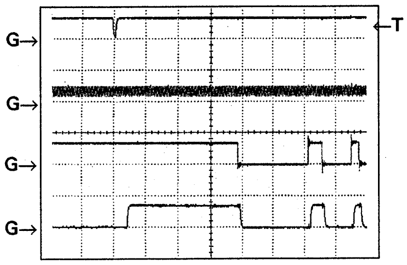
Note:1. The encircled number denote measuring pointes in the circuit diagram.
2. Reference voltage VHALF : 1.65V

⑪ CH1: STD1
⑫ CH2: STD4
⑬ CH3: STD7
⑭ CH4: STENABLE
5V/div. 2μs/div.



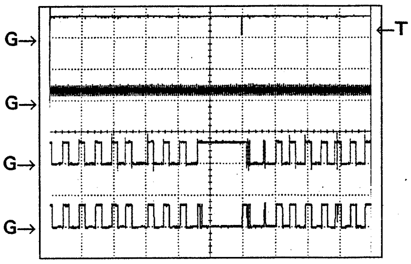
Waveform1

⑮ CH1: AVRTM
⑯ CH2: STCLK
⑰ CH3: STVALID
⑭ CH4: STENABLE
5V/div. 2μs/div.



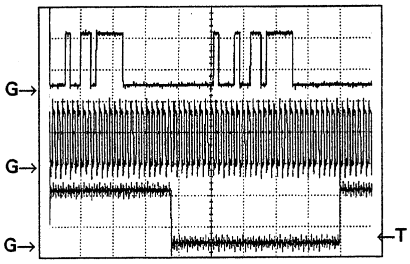
Waveform2(1)

⑮ CH1: AVRTM
⑯ CH2: STCLK
⑰ CH3: STVALID
⑭ CH4: STENABLE
5V/div. 50μs/div.



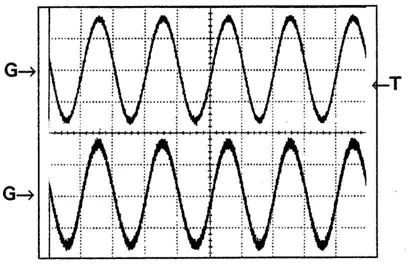
Waveform2(2)

⑱ CH1: AOUT0
⑲ CH2: SRCKAV
⑳ CH3: LRCKAV
2V/div. 2μs/div.



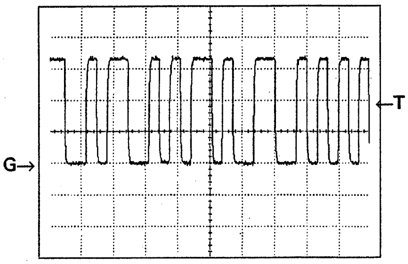
Waveform3

㉒ CH1: LO
㉓ CH2: RO
1V/div. 500μs/div.



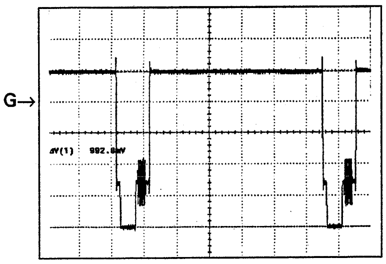
Waveform4

㉑ CH1: IEC958 1V/div. 500ns/div.



Waveform5

㉔ CH1: COMPO 200mV/div. 10μs/div.
[White 100% output]



Waveform6

6.3 TEST MODE

● Navigation Test Modes

1. Types of Test Modes

There are two types of test modes:

1. Production Engineering Specification (this type is not available for service uses).
2. Service Specification, ROM / SDRAM version

This type is available when the system start-up is conducted from system software in ROM.

2. Test Mode System Start-Up Method

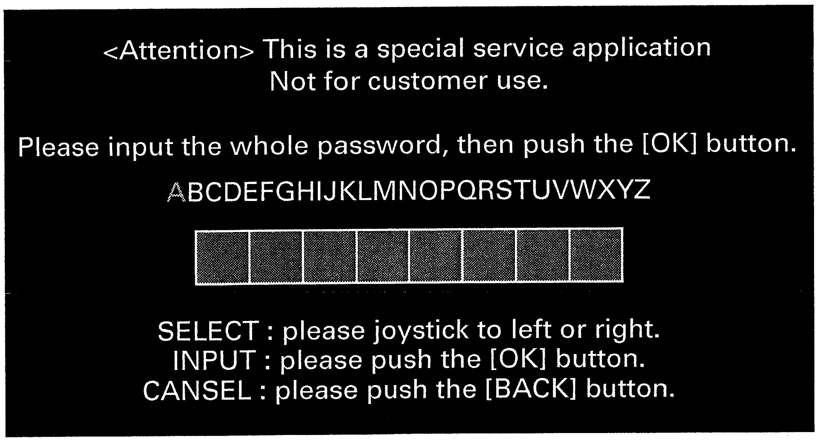
Service Specification Version (ROM / SDRAM version):

1. Press both the RESET and EJECT buttons simultaneously, when +Battery and ACC are both in an ON condition.
2. Release the RESET button only.
3. When the password entry screen is displayed, release the EJECT button.
4. Enter the password.
5. Once the password has been entered, press the OK button.
6. If the system matches the entered password the test mode menu will be displayed.

* Ordinarily, the ROM version will start up. However, if the system software is being stored on an SDRAM, and if the ACC is turned ON while the EJECT button only is being pressed, the software on the SDRAM will start up.

[Password]
The password is "2580456".
Enter the password using the ten-key pad, then press the OK button.
All the alphabetical characters displayed are dummy displays.
Seven digits are necessary for the password. Entering eight digits will result in a password error.

- Password Entry Screen



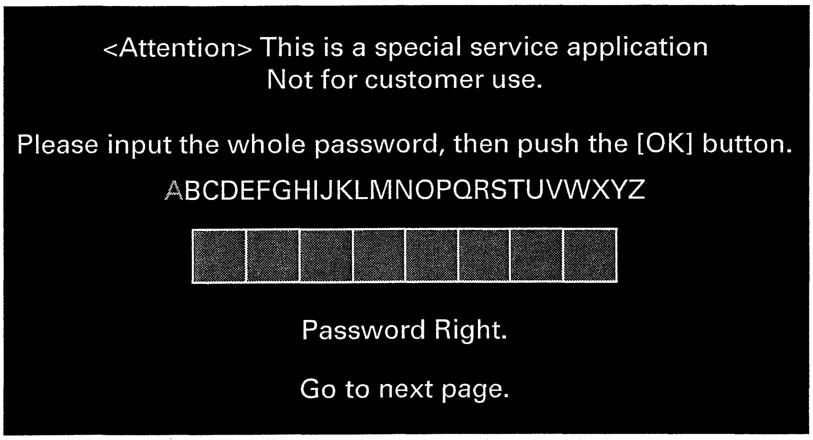
<Attention> This is a special service application
Not for customer use.

Please input the whole password, then push the [OK] button.

ABCDEFGHIJKLMNOPQRSTUVWXYZ

SELECT : please joystick to left or right.
INPUT : please push the [OK] button.
CANSEL : please push the [BACK] button.

- Password OK screen:
  This screen is displayed for approximately two seconds, then automatically changes to the menu screen.



<Attention> This is a special service application
Not for customer use.

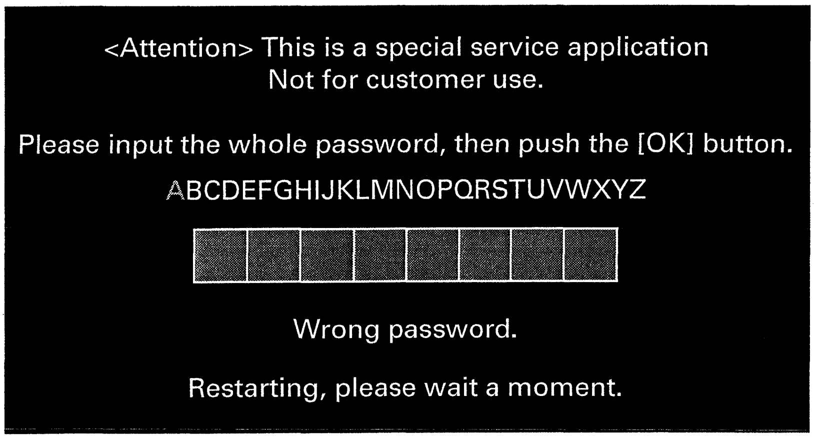
Please input the whole password, then push the [OK] button.

ABCDEFGHIJKLMNOPQRSTUVWXYZ

Password Right.

Go to next page.

- Password NG screen



<Attention> This is a special service application
Not for customer use.

Please input the whole password, then push the [OK] button.

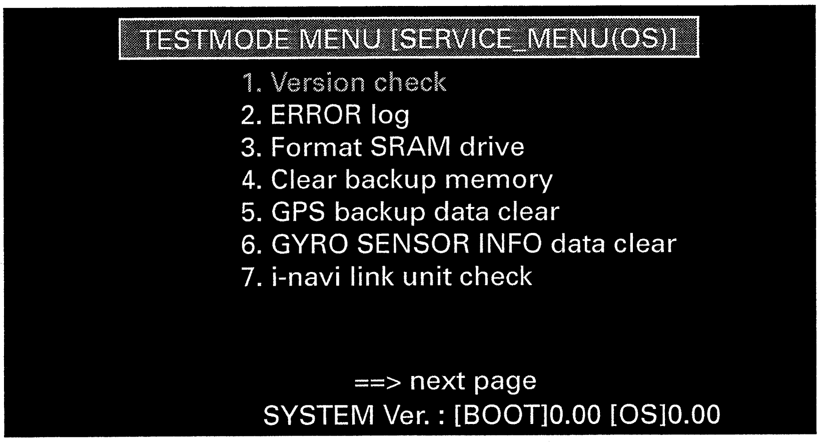
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Wrong password.

Restarting, please wait a moment.

3. Service Mode Menu

Service Specification Version (ROM / SDRAM version)



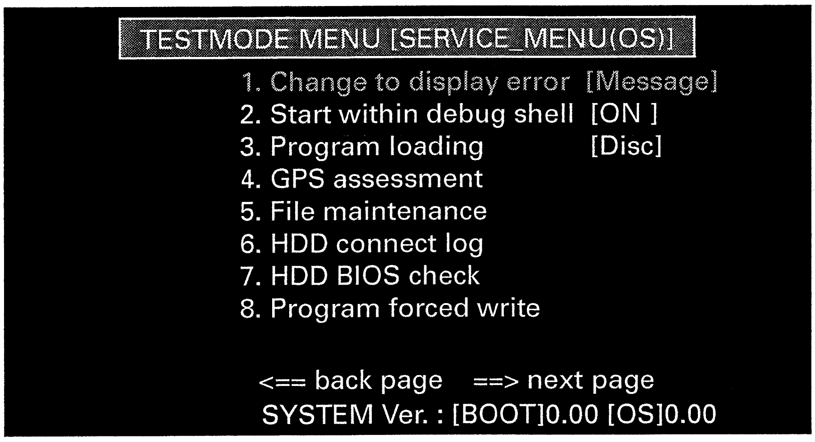
TESTMODE MENU [SERVICE_MENU(OS)]

1. Version check
2. ERROR log
3. Format SRAM drive
4. Clear backup memory
5. GPS backup data clear
6. GYRO SENSOR INFO data clear
7. i-navi link unit check

==> next page

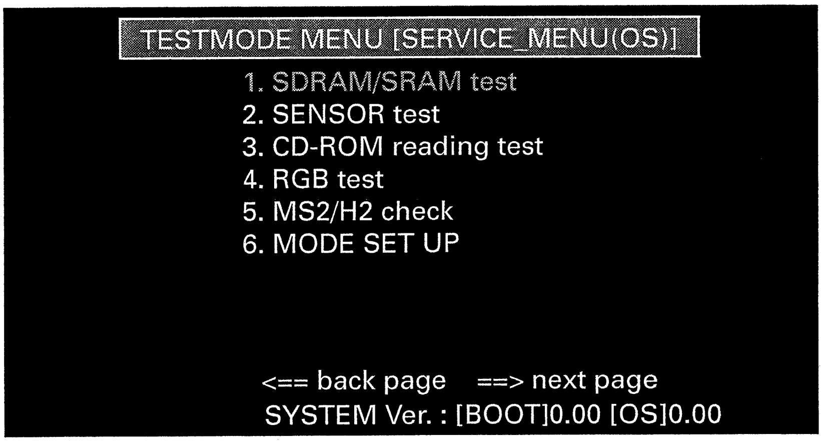
SYSTEM Ver. : [BOOT]0.00 [OS]0.00

1. Version check	Version check Various version information.
2. ERROR log	Error log entry test (Refer to page 155.) Displays an error log of the system software stored in the SRAM. A maximum of eight error logs can be displayed, starting with the latest error.
3. Format SRAM drive	SRAM formatting The SRAM area used by the application will be initialized. When the initialization process has been completed, the display will return to the menu screen.
4. Clear backup memory	Backup variable initialization The SRAM area used by the system software will be initialized. When the process has been completed, the system will reboot.
5. GPS backup data clear	GPS backup data clearing The SRAM area, used by the GPS program, will be initialized. When the process has been completed, the display will return to the menu screen.
6. GYRO SENSOR INFO data clear	Gyro sensor's learning function data clearing The learning values stored in the gyro sensor will be cleared. When the process has been completed, the display will return to the menu screen.
7. i-navi link unit check	Not used.



```
TESTMODE MENU [SERVICE_MENU(OS)]
  1. Change to display error  [Message]
  2. Start within debug shell [ON ]
  3. Program loading           [Disc]
  4. GPS assessment
  5. File maintenance
  6. HDD connect log
  7. HDD BIOS check
  8. Program forced write

   <== back page    ==> next page
   SYSTEM Ver. : [BOOT]0.00 [OS]0.00
```

1. Change to display error	Error information switch (Refer to page 156.) A display setting (for debugging) where an error occurs. A Message (message itself) or Information (error information) selection can be made.
2. Start within debug shell	Debug shell Start-up setting for the debug shell (for debugging). An Off (no initial start-up) or On (initial start-up) selection can be made.
3. Program loading	Program loading Setting the storage location priority for the system software and application at start-up (for debugging). A Disc (disc prioritized as boot source) or Disc & Card (disc or card prioritized as boot source) selection can be made.
4. GPS assessment	GPS evaluation system start up Tests on the availability and usability of the GPS evaluation system are conducted. Pressing the BACK key will return the display to the menu screen.
5. File Maintenance	File management function test Conducts formatting of the SRAM drive and PC card (ATA Flash Card). Data stored in the SRAM can be extracted and copied to the PC Card. Data extracted from the SRAM to the PC Card can be copied to the SRAM again.
6. HDD connect log	Not used.
7. HDD BIOS check	Not used.
8. Program forced write	Forced overwriting of the program Forced overwriting of SYS (system), GPS (GPS), APL (application) software, (and DSP software for Japanese domestic versions) are performed. For the system and application, the selection of a language is required (using the joystick). Pressing the BACK key will return the display to the menu screen.



TESTMODE MENU [SERVICE_MENU(OS)]

1. SDRAM/SRAM test
2. SENSOR test
3. CD-ROM reading test
4. RGB test
5. MS2/H2 check
6. MODE SET UP

<== back page ==> next page

SYSTEM Ver. : [BOOT]0.00 [OS]0.00

1. SDRAM/SRAM test	Memory check SRAM: Device and bus tests are conducted to all areas of the SRAM. Data is protected during the test. SDRAM: Device and bus tests are conducted to all areas of the SDRAM, by dividing the areas into BIOS / USER areas. During the device tests, data in the BIOS area is not protected, while the data in the USER area is protected During the bus test, data patterns are written in the USER area, therefore, the data in the USER area is not protected.
2. SENSOR test	Sensor tests Tests on the G-sensor, gyro, power supply voltage and mechanical installation conditions, are conducted. Pressing the BACK key will return the display to the menu screen.
3. CD-ROM reading test	CD-ROM reading test A reading test of the CD-ROM drive will be conducted.
4. RGB test	Display images RGB rendering checks RGB rendering tests (The upper half consists of eight colors of black, blue, red, pink, green, light blue, yellow and white, as well as the lower half three colors of red, green and blue.) -> Red (full) -> Green (full) -> Blue (full) -> The color toggle can be implemented by using the <- and -> keys. Pressing the BACK key will return the display to the menu screen.
5. MS2/H2 check	Mechanism Module test Starting the DVD Mechanism Module test mode.(Refer to page 159.)
6. MODE SET UP	Not used.

4. Test Mode's Menu Selection Method

A selection can be made while moving the joystick up or down the menu. When the desired item has been emphasized, press the OK button to execute the selected test.

This selection cannot be performed using the ten-key pad.

A transition between pages of the menu can be performed by moving the joystick to the left and right.

5. Version Information

The system software's version information is provided on the bottom line of the test mode menu.

SYSTEM Ver. : [BOOT] X.XX	ROM version = X.XX. No system software exists in an SDRAM.
SYSTEM Ver. : [BOOT] X.XX [OS] Y.YY	ROM version = X.XX. SDRAM version = Y.YY.

Error Information

1. Error Information

Descriptions of error information, for errors arising from system software problems, will be provided in this section.

Up to eight sets of information, related to the system software's errors, will be stored in the SRAM.

By executing hi_sysdwn( ) the line number (on which the error occurred), the error code and detailed information of the error, will be stored in the error log.

Hi_sysdwn( ) will be executed in the following two circumstances:

1. hi_sysdwn( ) will be intentionally stored if fatal errors occur with each BIOS.
2. If multiple exceptions, fatal exceptions, illegal command codes and trap command errors occur.

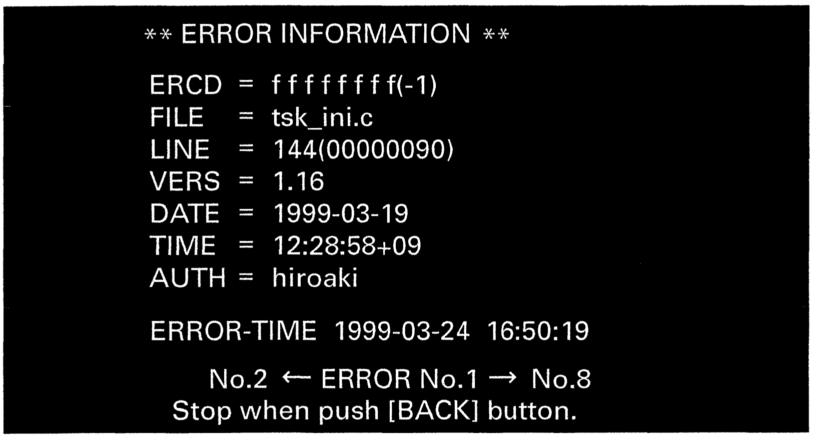
2. Error Log's Entry Function

Up to eight sets of information, related to errors starting with the latest error, will be displayed by the error log entry function.

There are two types of error log displays.

The display will vary when the argument provided to hi_sysdwn( ), depending on whether detailed information (such as program name, version number, creation date, creation time and creator name) exists or not.

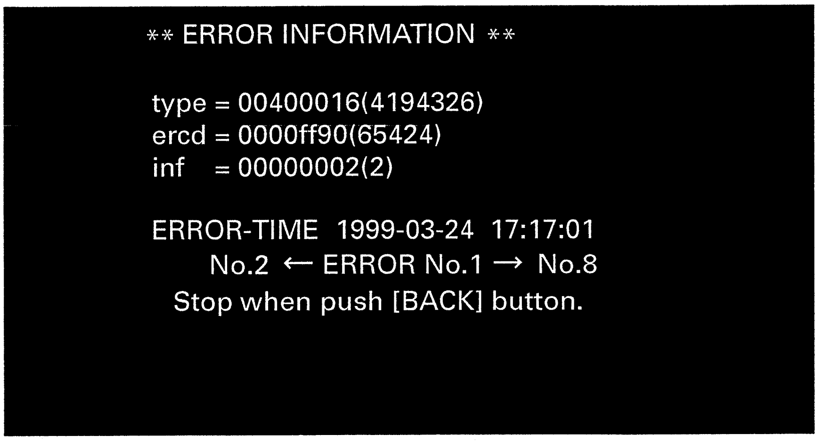
1. When detailed information exists:



```
        ** ERROR INFORMATION **

        ERCD  =  ffffffff(-1)
        FILE  =  tsk_ini.c
        LINE  =  144(00000090)
        VERS  =  1.16
        DATE  =  1999-03-19
        TIME  =  12:28:58+09
        AUTH  =  hiroaki

        ERROR-TIME  1999-03-24  16:50:19

            No.2 ← ERROR No.1 → No.8
          Stop when push [BACK] button.
```

ERCD	Error code.
FILE	Error occurring program name.
LINE	Error occurring program line number.
VERS	Error occurring program version number.
DATE	Error occurring program creation date.
TIME	Error occurring program creation time.
AUTH	Error occurring program creator name.
ERROR-TIME	Error occurrence date and time.

2. When detailed information does not exist:



```
        ** ERROR INFORMATION **

 type = 00400016(4194326)
 ercd = 0000ff90(65424)
 inf  = 00000002(2)

 ERROR-TIME  1999-03-24  17:17:01
     No.2 ← ERROR No.1 → No.8
   Stop when push [BACK] button.
```

type	Error occurring program line number.
ercd	Error code.
inf	System down information.
ERROR-TIME	Error occurrence date and time.

If an error occurs due to a multiple exception, the definitions will change to the following:

type	Execution address at the time of error occurrence.
ercd	Contributing factor for the exceptions.
inf	Program status word at the time of error occurrence.
ERROR-TIME	Error occurrence date and time.

3. Error Information Switch

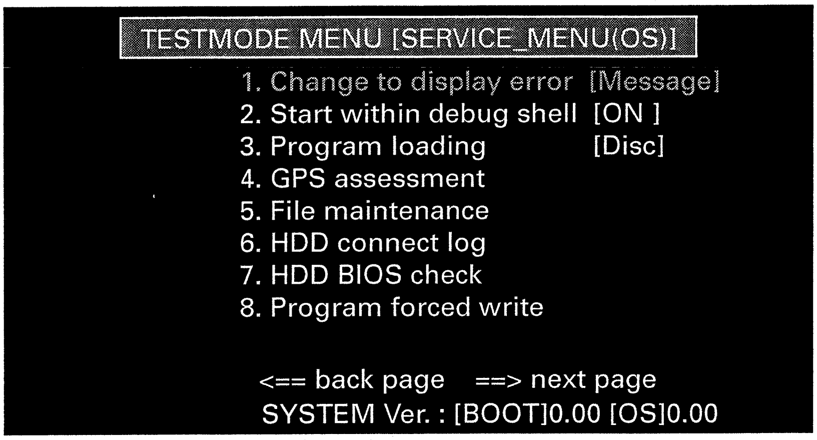
The product (with default settings) will display error messages to the user if an error occurs.

Error information can be displayed if an error occurs by switching the error information in the test mode.

In either case, the error log entry display will be the same.

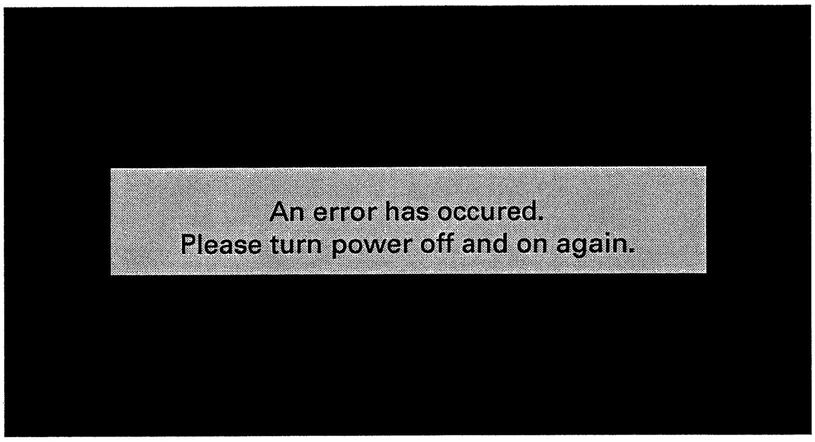
1) Error message display (default settings):

- Setting in the test mode:



```
TESTMODE MENU [SERVICE_MENU(OS)]
      1. Change to display error  [Message]
      2. Start within debug shell  [ON ]
      3. Program loading           [Disc]
      4. GPS assessment
      5. File maintenance
      6. HDD connect log
      7. HDD BIOS check
      8. Program forced write

       <== back page    ==> next page
       SYSTEM Ver. : [BOOT]0.00 [OS]0.00
```

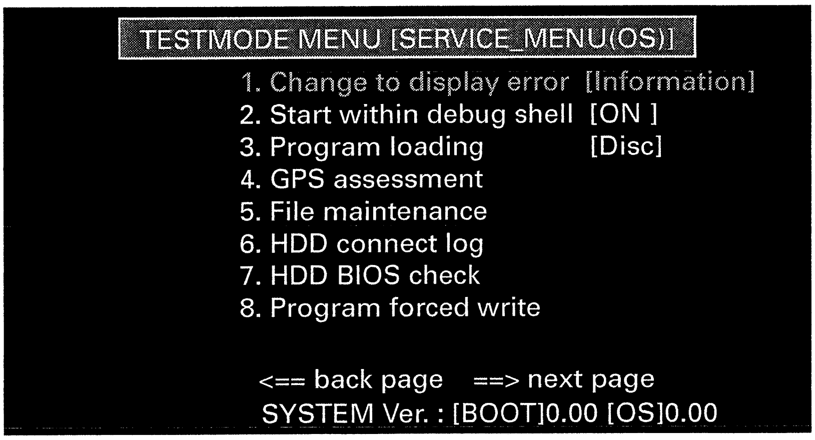
- Display when an error occurs:



```
An error has occured.
Please turn power off and on again.
```

2) Error information display

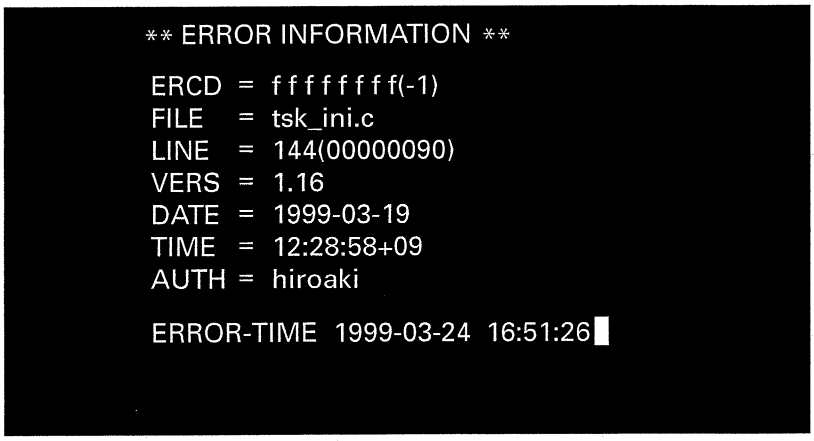
- Settings in the test mode:



```
TESTMODE MENU [SERVICE_MENU(OS)]
1. Change to display error  [Information]
2. Start within debug shell  [ON ]
3. Program loading           [Disc]
4. GPS assessment
5. File maintenance
6. HDD connect log
7. HDD BIOS check
8. Program forced write

<== back page    ==> next page
SYSTEM Ver. : [BOOT]0.00 [OS]0.00
```

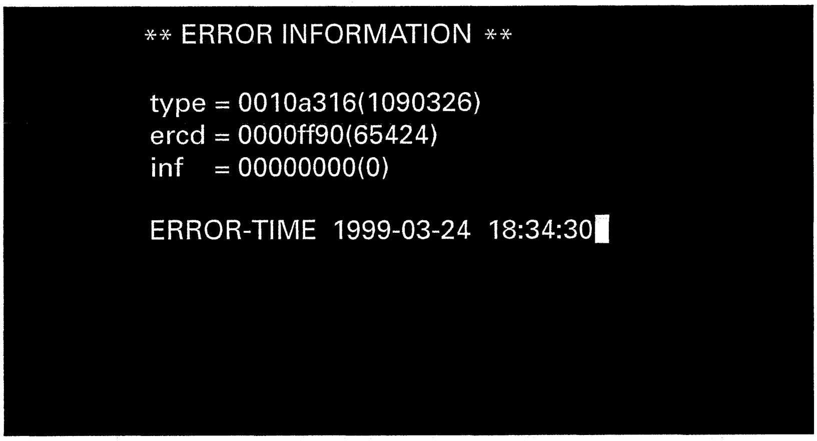
Display when an error occurs:

- If error information exists:



```
** ERROR INFORMATION **

ERCD  =  f f f f f f f f(-1)
FILE  =  tsk_ini.c
LINE  =  144(00000090)
VERS  =  1.16
DATE  =  1999-03-19
TIME  =  12:28:58+09
AUTH  =  hiroaki

ERROR-TIME  1999-03-24  16:51:26█
```

- If error information does not exist:



```
** ERROR INFORMATION **

 type = 0010a316(1090326)
 ercd = 0000ff90(65424)
 inf  = 00000000(0)

 ERROR-TIME  1999-03-24  18:34:30█
```

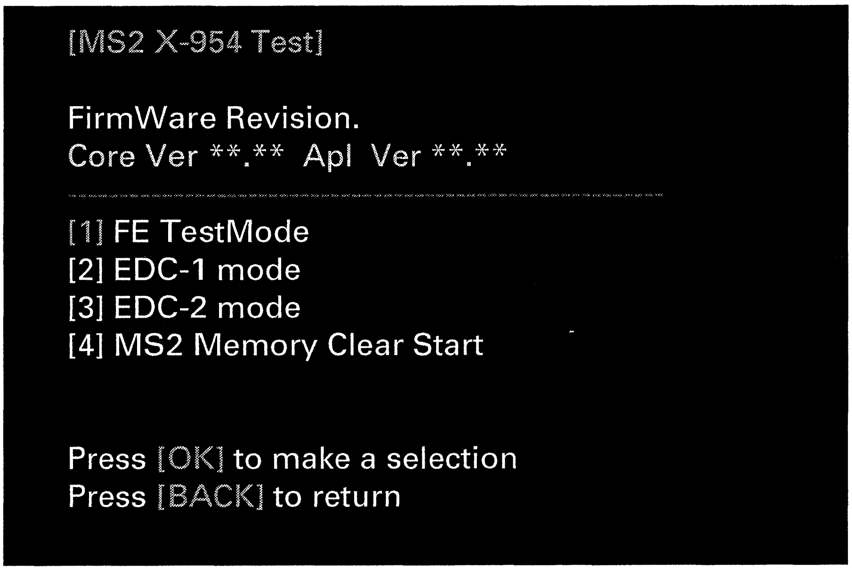
● DVD Test Modes

CAUTIONS
Protection is not operational against a mechanical runaway conditions during servo testing,.
Critical damage can result if the system is allowed to continue in a mechanical runaway state.
If abnormal noise is heard during the test, turn the power OFF immediately.

● Entering the test mode
The test mode can be selected from the navigation test mode.

● Keys (remote control) used for the DVD test mode
[OK] : Selection decided.
[BACK] : Go back.
Directional keys : [← ↓ → ↑] keys of the joystick.

(1) Initial screen display



[MS2 X-954 Test]

FirmWare Revision.
Core Ver **.** Apl Ver **.**

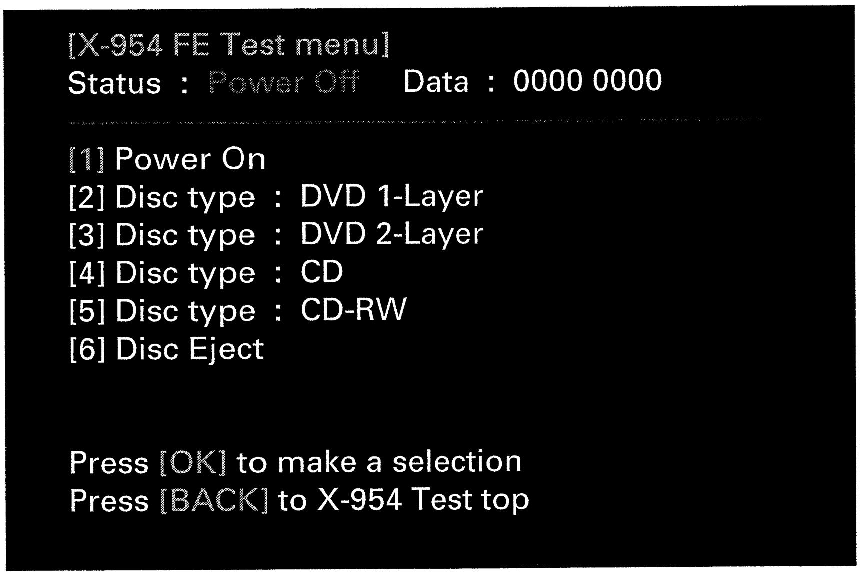
[1] FE TestMode
[2] EDC-1 mode
[3] EDC-2 mode
[4] MS2 Memory Clear Start

Press [OK] to make a selection
Press [BACK] to return

FirmWare Revision:	Version of the drive used.
[1]	Starts the FE test mode.
[2]	EDC1 mode (available for DVDs only).
[3]	EDC2 mode (available for DVDs only).
[4]	Executes the MS2 memory clearing operation.
[OK]	Executes.
[BACK]	Returns to the test mode menu.

* Using the joystick select individual items .

(2) FE Test Menu Screen Display



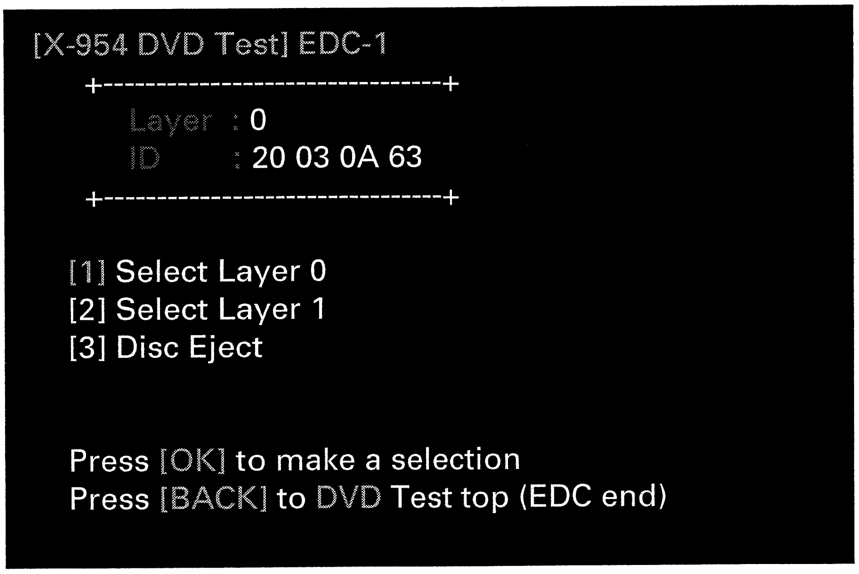
```
[X-954 FE Test menu]
Status  :  Power Off      Data  :  0000 0000

[1] Power On
[2] Disc type  :  DVD 1-Layer
[3] Disc type  :  DVD 2-Layer
[4] Disc type  :  CD
[5] Disc type  :  CD-RW
[6] Disc Eject


Press [OK] to make a selection
Press [BACK] to X-954 Test top
```

Status : "Power Off (during normal conditions)."

[1]	Power On (proceed to servo test 1-0).
[2]	Disk type : DVD single-layer.
[3]	Disk type : DVD double-layer.
[4]	Disk type : CD.
[5]	Disk type : CD-RW.
[6]	Ejects the disk.
[OK]	Executes.
[BACK]	Returns to the initial screen display for the test.

* Using the joystick select individual items .

(3) DVD EDC Test Menu Screen Display



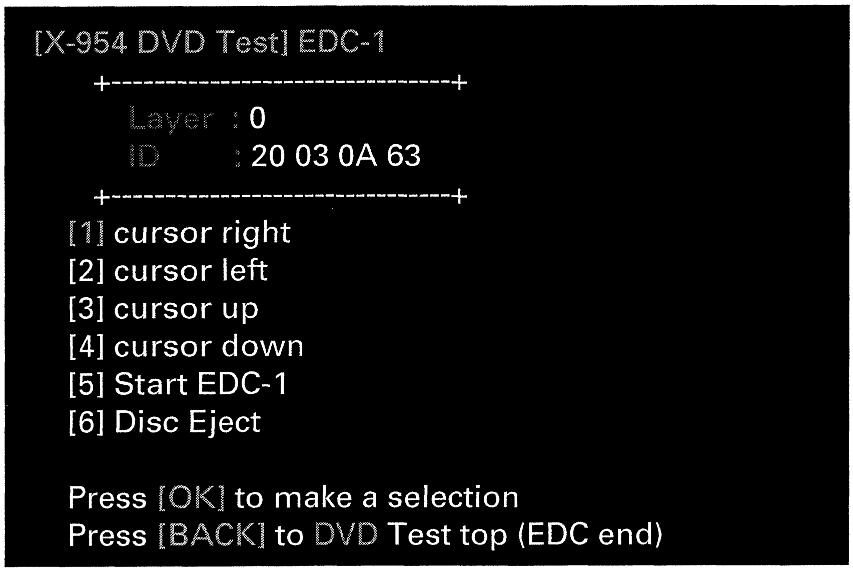
```
[X-954 DVD Test] EDC-1
  +-------------------------------+
      Layer  : 0
      ID     : 20 03 0A 63
  +-------------------------------+

   [1] Select Layer 0
   [2] Select Layer 1
   [3] Disc Eject


   Press [OK] to make a selection
   Press [BACK] to DVD Test top (EDC end)
```

EDC-1 : Performs consecutive EDC tests.
EDC-2 : Performs EDC tests for each block.
ID : Performs ID of the test.

[1]	Selects layer 0.
[2]	Selects layer 1.
[3]	Ejects the disk.
[OK]	Executes.
[BACK]	Returns to the test mode menu.

* Using the joystick select individual items .

(4) DVD ECD Test Menu Screen Display

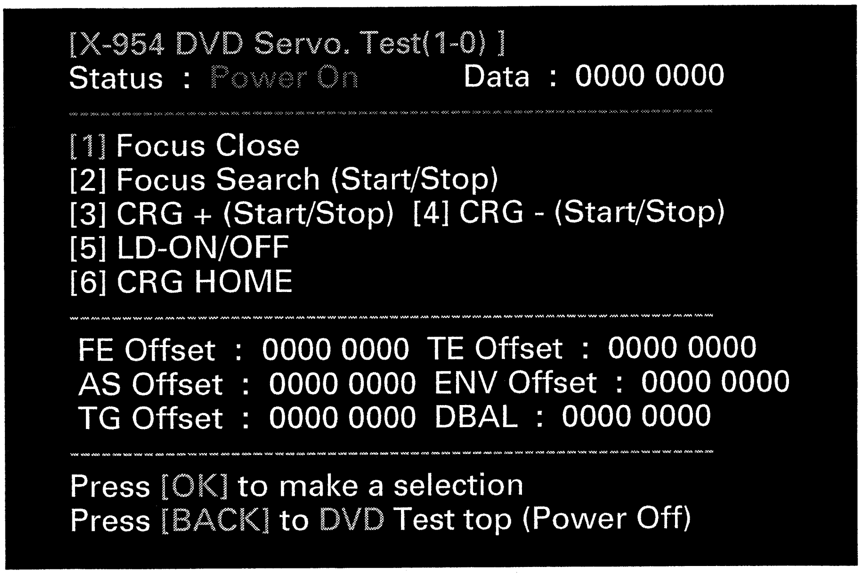


```
[X-954 DVD Test] EDC-1
      +-------------------------------+
           Layer  : 0
           ID       : 20 03 0A 63
      +-------------------------------+
     [1] cursor right
     [2] cursor left
     [3] cursor up
     [4] cursor down
     [5] Start EDC-1
     [6] Disc Eject

     Press [OK] to make a selection
     Press [BACK] to DVD Test top (EDC end)
```

EDC-1 : Performs consecutive EDC tests.
EDC-2 : Performs EDC tests for each block.
ID : Performs ID of the test.

[1]	Moves the cursor to the right by one increment.
[2]	Moves the cursor to the left by one increment.
[3]	Moves the cursor up by one increment.
[4]	Moves the cursor down by one increment.
[5]	Starts the EDC test.
[6]	Ejects the disk.
[OK]	Executes.
[BACK]	Returns to the test mode menu.

(5) Servo Test Screen Display 1-0



```
[X-954 DVD Servo. Test(1-0) ]
Status : Power On          Data : 0000 0000

[1] Focus Close
[2] Focus Search (Start/Stop)
[3] CRG + (Start/Stop)  [4] CRG - (Start/Stop)
[5] LD-ON/OFF
[6] CRG HOME

 FE Offset : 0000 0000  TE Offset : 0000 0000
 AS Offset : 0000 0000  ENV Offset : 0000 0000
 TG Offset : 0000 0000  DBAL : 0000 0000

Press [OK] to make a selection
Press [BACK] to DVD Test top (Power Off)
```

Test items are basically the same for both DVDs and CDs.

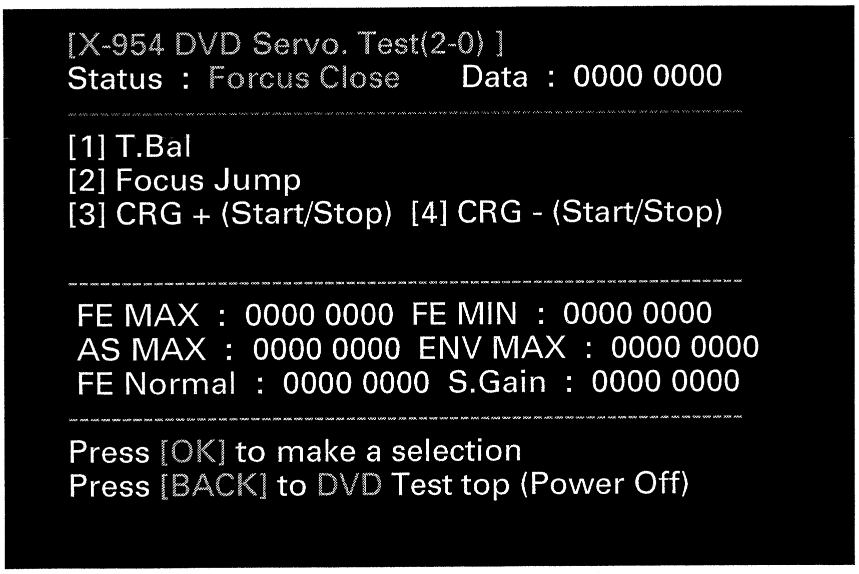
* Using the joystick select individual items.

Status : "Power On" (during normal conditions).

* Focus closing and searching will not operate unless the LD-ON setting is made.

[1]	Closes in on the focus (proceeds to servo test 2-0).
[2]	Performs a focus search operation (S-curve measurement). Focus operation will then be stopped.
[3]	Moves the carriage (external). The carriage transition operation will then be stopped.
[4]	Moves the carriage (internal). The carriage transition operation will then be stopped.
[5]	Performs LD-ON/OFF operation.
[6]	Returns the carriage to the home position.
[BACK]	Returns to the DVD test menu screen display. * This operation will not be performed until the coefficient figures have been received.

(6) Servo Test Screen Display 2-0



```
[X-954 DVD Servo. Test(2-0) ]
Status : Forcus Close      Data : 0000 0000

[1] T.Bal
[2] Focus Jump
[3] CRG + (Start/Stop)  [4] CRG - (Start/Stop)


 FE MAX : 0000 0000  FE MIN : 0000 0000
 AS MAX : 0000 0000  ENV MAX : 0000 0000
 FE Normal : 0000 0000  S.Gain : 0000 0000

Press [OK] to make a selection
Press [BACK] to DVD Test top (Power Off)
```

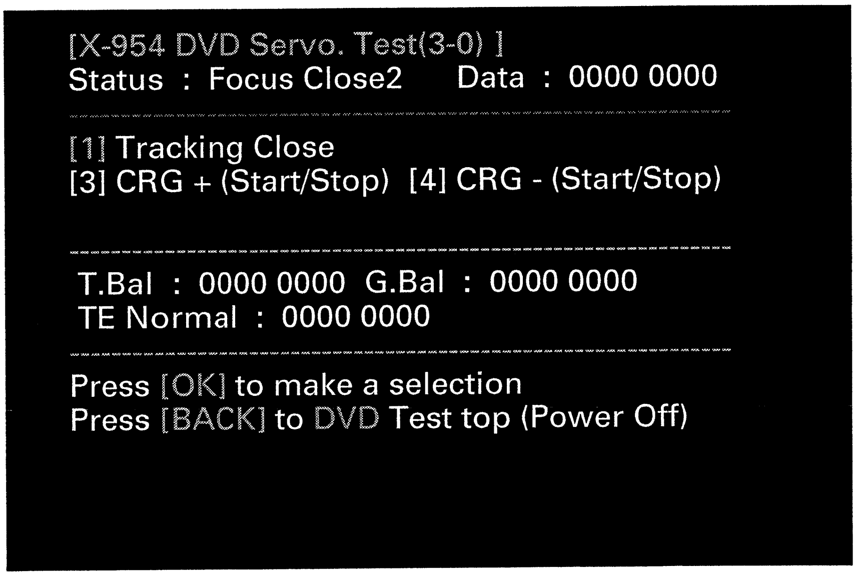
Test items are basically the same for both DVDs and CDs.

* Using the joystick select individual items.

Status : "Focus Close" (during normal conditions).

[1] Adjusts tracking balance (proceeds to servo test 3-0).
[2] Performs a focus jump operation.
[3] Moves the carriage (external). The carriage transition operation will then be stopped.
[4] Moves the carriage (internal). The carriage transition operation will then be stopped.
[BACK] Returns to the DVD test menu screen display.
* This operation will not be performed until the coefficient figures have been received.

(7) Servo Test Screen Display 3-0



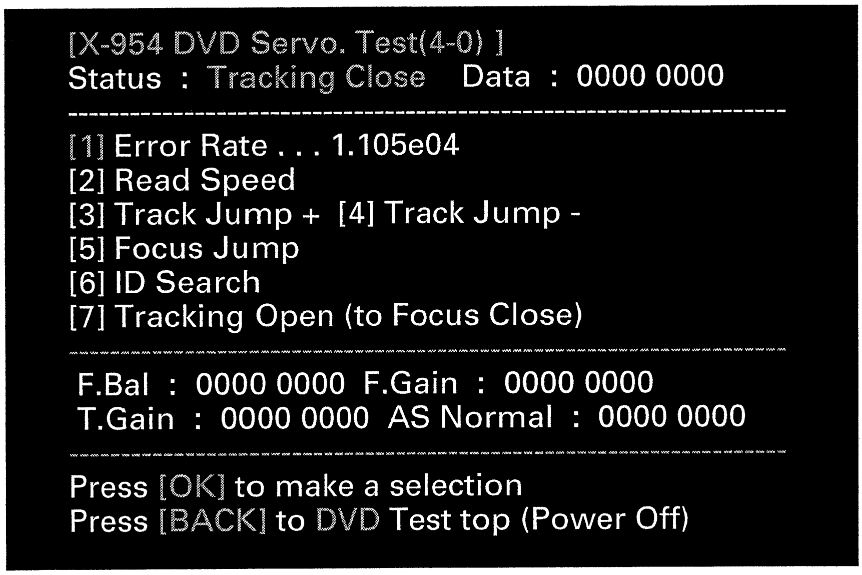
```
[X-954 DVD Servo. Test(3-0) ]
Status : Focus Close2     Data : 0000 0000

[1] Tracking Close
[3] CRG + (Start/Stop)  [4] CRG - (Start/Stop)

 T.Bal : 0000 0000  G.Bal : 0000 0000
 TE Normal : 0000 0000

Press [OK] to make a selection
Press [BACK] to DVD Test top (Power Off)
```

Test items are basically the same for both DVDs and CDs.

* Using the joystick select individual items.

Status : "Focus Close2" (during normal conditions).
[1] Performs tracking close operation (proceeds to servo test 4-0).
[3] Moves the carriage (external). The carriage transition operation will then be stopped.
[4] Moves the carriage (internal). The carriage transition operation will then be stopped.
[BACK] Returns to the DVD test menu screen display.
* This operation will not be performed until the coefficient figures have been received.

(8) Servo Test Screen Display 4-0



```
[X-954 DVD Servo. Test(4-0) ]
Status : Tracking Close    Data : 0000 0000
----------------------------------------------------------------
[1] Error Rate . . . 1.105e04
[2] Read Speed
[3] Track Jump +  [4] Track Jump -
[5] Focus Jump
[6] ID Search
[7] Tracking Open (to Focus Close)
----------------------------------------------------------------
 F.Bal  : 0000 0000  F.Gain  :  0000 0000
 T.Gain  :  0000 0000  AS Normal  :  0000 0000
----------------------------------------------------------------
Press [OK] to make a selection
Press [BACK] to DVD Test top (Power Off)
```

Test items are basically the same for both DVDs and CDs.

* Using the joystick select individual items.

Status : "Tracking Close" (during normal conditions).

[1] [OK] triggers measurement of the error rates (other operations can not be performed for approximately 10 seconds).

[2] [OK] triggers switching of the reproduction speed.

[3] Performs track jumping by a designated number of tracks (external).

[4] Performs track jumping by a designated number of tracks (internal).

[5] Performs a focus jump operation (for DVDs only).

[6] Designates an ID (for DVDs only).

[7] Performs a tracking open operation (for the focus close status: will proceed to servo test 2-0).

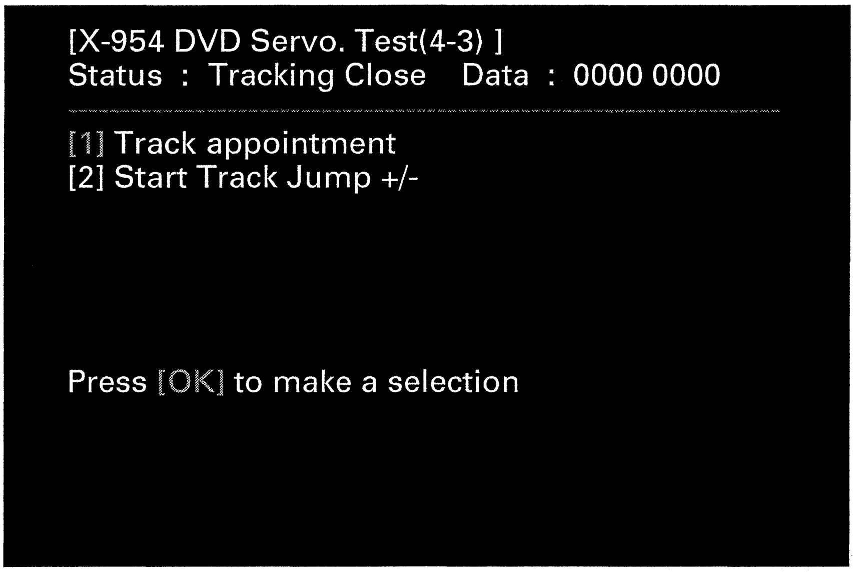
[BACK] Returns to the DVD test menu screen display.

* This operation will not be performed until the coefficient figures have been received.

Reproduction speeds

L0-layer	DVD x CAV, CD x 2CLV	4000 0000
L0-layer	DVD x 1CLV, CD x 1CLV	4200 0000
L1-layer	DVD x CAV	4100 0000
L1-layer	DVD x 1CLV	4300 0000

(9) Servo Test Screen Display 4-3/4

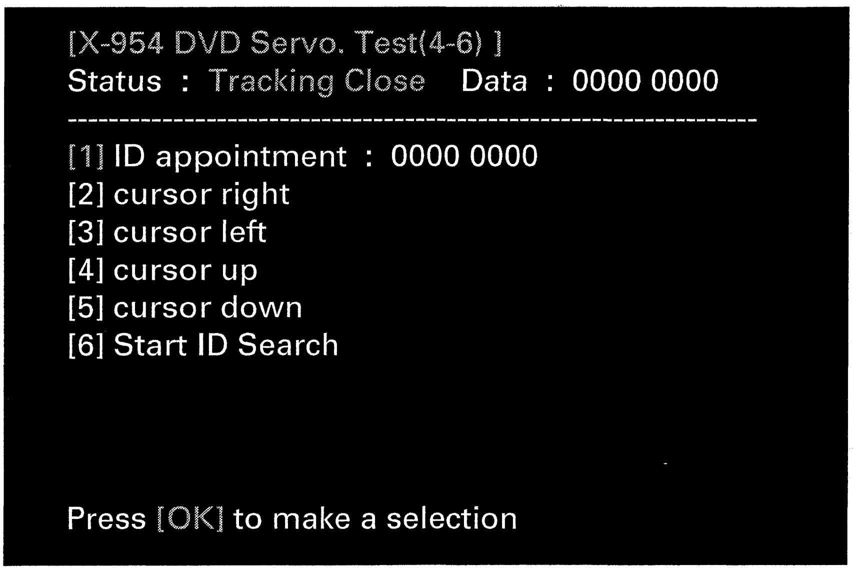


```
[X-954 DVD Servo. Test(4-3) ]
Status : Tracking Close    Data : 0000 0000
--------------------------------------------------------------
[1] Track appointment
[2] Start Track Jump +/-

Press [OK] to make a selection
```

Test items are basically the same for both DVDs and CDs.

Status : "Tracking Close" (during normal conditions).
[1] Performs a track number designation (MS2 cyclically switches the ten available patterns).
[2] Starts the tracking jump operation (will proceed to servo test 4-0).

(10) Servo Test Screen Display 4-6



```
[X-954 DVD Servo. Test(4-6) ]
Status : Tracking Close    Data : 0000 0000
--------------------------------------------------------------
[1] ID appointment : 0000 0000
[2] cursor right
[3] cursor left
[4] cursor up
[5] cursor down
[6] Start ID Search

Press [OK] to make a selection
```

Available for DVDs only.
Status : "Tracking Close" (during normal conditions).
[1] Displays designated ID .
[2] Moves the cursor to the right by one increment.
[3] Moves the cursor to the left by one increment.
[4] Moves the cursor up by one increment.
[5] Moves the cursor down by one increment.
[6] Starts the ID search operation (return to servo test 4-0).

6.4 USING THE TEST DISC

● TEST DISC Part No. : GGV1059 (CNDK-LT0102)

1. Start up

Insert the test disc into the system, and press the [BACK] key while the title, "AVIC-9DVD/EW, AVIC-9DVD/UC and AVIC-8DVD/EW TEST DISC" is displayed. This will bring up the menu screen.
If keys are not pressed while the title is displayed, the initial screen of the line testing will be displayed.

2. Key Operations

- Line testing screen display
  1. To switch between the testing screen and menu screen displays press the [CR] key.
  2. To test a selected item press the [BACK] key.
  3. To revert to the previous screen press the [↑] key.
  4. To move to the next test screen press the [↓] key (the display will not change to the next screen, unless the test has been completed successfully).

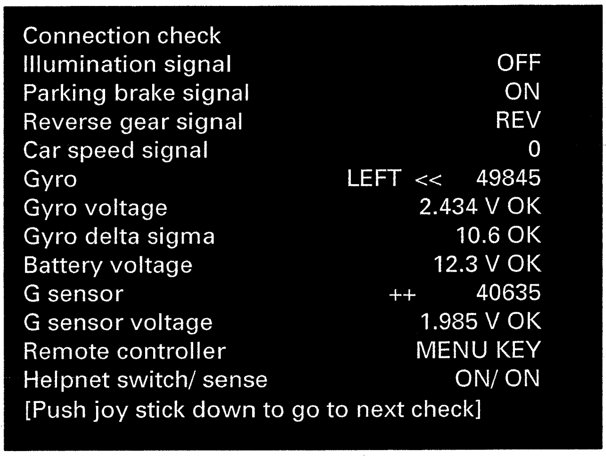
* For details please refer to descriptions for each screen.

- Menu screen for service
  1. Select an item by using the [↑] and [↓] keys, then press the [CR] key to display the test screen.
  2. To return to the menu screen press the [BACK] key.

* For details please refer to descriptions on each screen.

3. Test Screen Display

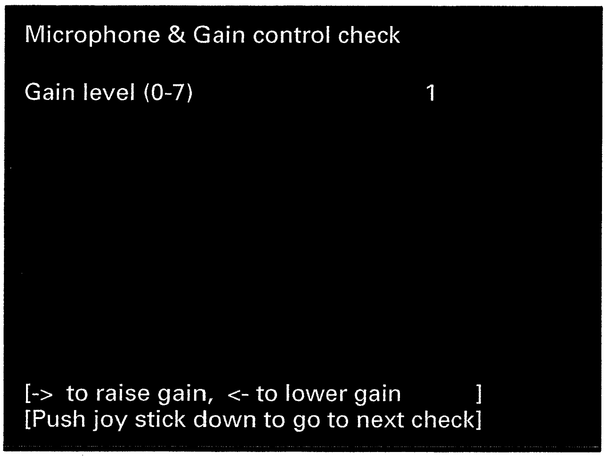
1. External Connections



```
Connection check
Illumination signal                     OFF
Parking brake signal                     ON
Reverse gear signal                     REV
Car speed signal                          0
Gyro                          LEFT << 49845
Gyro voltage                      2.434 V OK
Gyro delta sigma                    10.6 OK
Battery voltage                   12.3 V OK
G sensor                         ++    40635
G sensor voltage                  1.985 V OK
Remote controller                  MENU KEY
Helpnet switch/ sense                ON/ ON
[Push joy stick down to go to next check]
```

- Status of items listed on the left will be updated every second.
- The VCUE (Pin-9) line will be turned ON during the test.
- The status of the Illumination, Parking Brake and Reverse Gear must change between ON and OFF.
- Pressing the [↓] key will not enable the test to proceed to the next test unless all conditions have been satisfied.

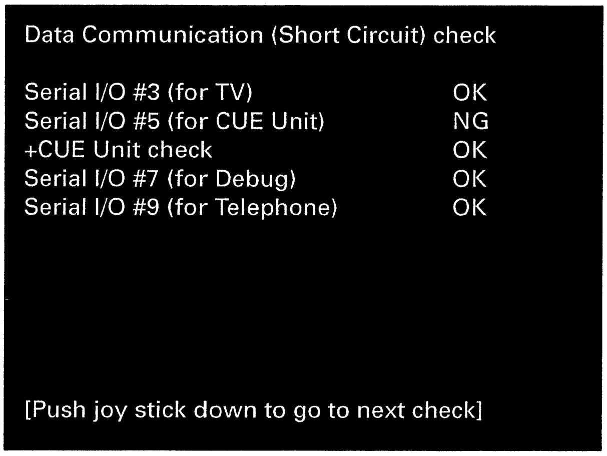
2. Call Origination Microphone Line (Voice Recognition)



```
Microphone & Gain control check

Gain level (0-7)                    1

[-> to raise gain, <- to lower gain        ]
[Push joy stick down to go to next check]
```

- Voice recognition will be performed and the microphone and speaker line's connectivity tests will be conducted. Please input a voice signal in MICIN to verify the voice recognition's function, operation and input level. The gain of PROGGAIN0 through PROGGAIN2 can be increased or decreased by using the [→] and [←] of the joystick.
- Enable and disable muting of the ONSEIMUTE signal by using the Current Position key as a toggle switch.
- The next test can be performed by pressing the [↓] key.

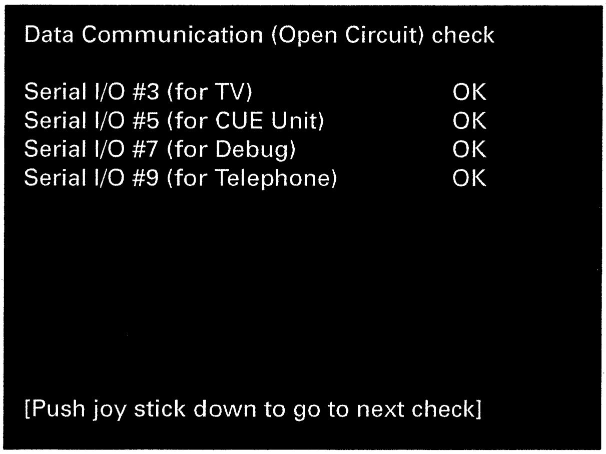
3. Data Communications (Short Circuit Checks)



```
Data Communication (Short Circuit) check

Serial I/O #3 (for TV)                  OK
Serial I/O #5 (for CUE Unit)            NG
+CUE Unit check                         OK
Serial I/O #7 (for Debug)               OK
Serial I/O #9 (for Telephone)           OK

[Push joy stick down to go to next check]
```

- CUE connection will be checked for short circuits. If the CUE is not connected a loop-back check at CH5 will be performed. If the CUE connectivity or CH5 loop-back check results in an OK, the CH5 test will be successfully completed (OK).
- The SIO #1, #6 and ETC checks, will be skipped.
- If all tests result in an OK the next test can be performed by using the [↓] key.

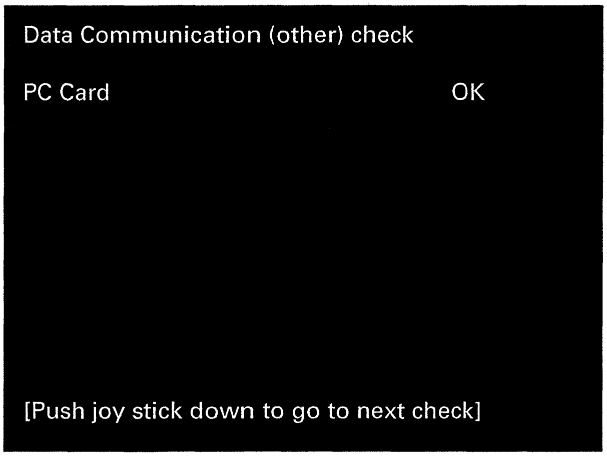
4. Data Communications (Open Circuit Checks)



```
Data Communication (Open Circuit) check

Serial I/O #3 (for TV)                  OK
Serial I/O #5 (for CUE Unit)            OK
Serial I/O #7 (for Debug)               OK
Serial I/O #9 (for Telephone)           OK

[Push joy stick down to go to next check]
```

- The SIO connection is checked for open circuits. Please do not connect anything to the pins. If the circuit is determined to be open, the test will result in an OK for each SIO connection.
- The next test can be performed using the [↓] key, if all tests result in OK.

5. Data Communications (Others)



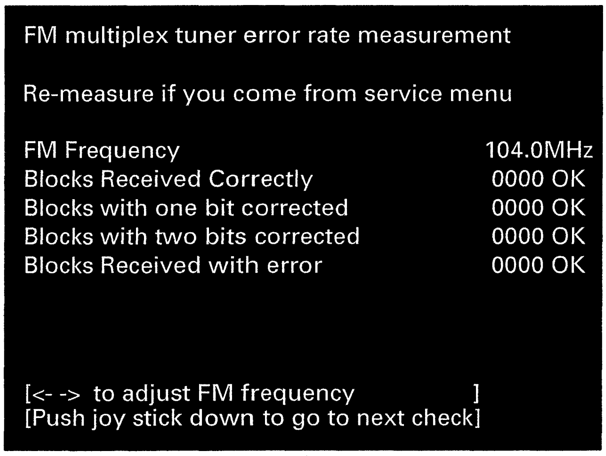
Data Communication (other) check

PC Card OK

[Push joy stick down to go to next check]

- PC card connection is checked.
- The next test can be performed by pressing the [↓] key, if all tests result in OK.

6. FM Multiplex Error Measurements



FM multiplex tuner error rate measurement

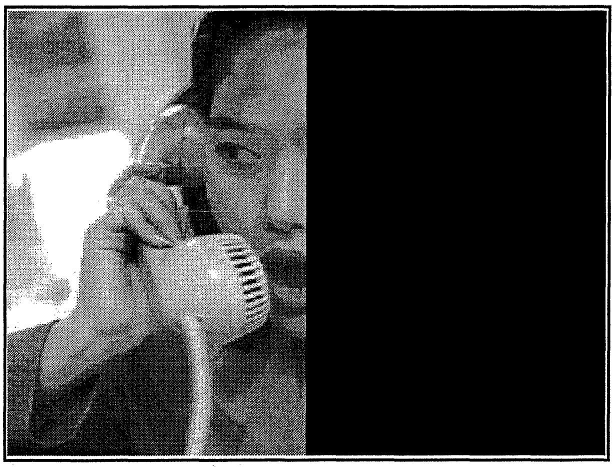
Re-measure if you come from service menu

FM Frequency	104.0MHz
Blocks Received Correctly	0000 OK
Blocks with one bit corrected	0000 OK
Blocks with two bits corrected	0000 OK
Blocks Received with error	0000 OK

[<- -> to adjust FM frequency]
[Push joy stick down to go to next check]

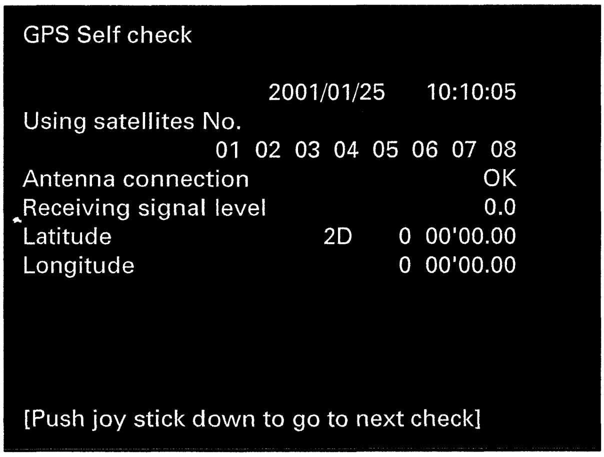
- FM multiplex error measurement is conducted.
- The default frequency is 104.0MHz.
- If the test is performed for the first time, measurements (taken at the time the test disk is started up) will be displayed.
- Please set the frequency to a frequency other than the frequency used in the previous test for all tests following the second test.
- The frequency can be changed by using the [←] and [→] keys after taking a measurement.
- 500 blocks will be tested, and if the error rate is 1% or less, the results will be displayed as "OK".
- The next test can be performed by pressing the [↓] key, if the test results in an OK.

7. Natural Image and Navigator P-side-P



- A 256-color natural image will be displayed as a background image, and the right half of the image will be changed to a chroma key color.
- The 1kHz sine wave, with a sampling rate of 22kHz, will be output for 30 seconds.
- If the test screen is displayed, turn the guidance audio ON, then turn it OFF when the screen is no longer displayed.
- The sound volume can be altered by pressing the [←] and [→] keys (from level 0 to 9).
  [JPEG file name: HITO1.JPG]
  [audio file name: A19K01KR.WAV]
- The next test can be performed using the [↓] key.

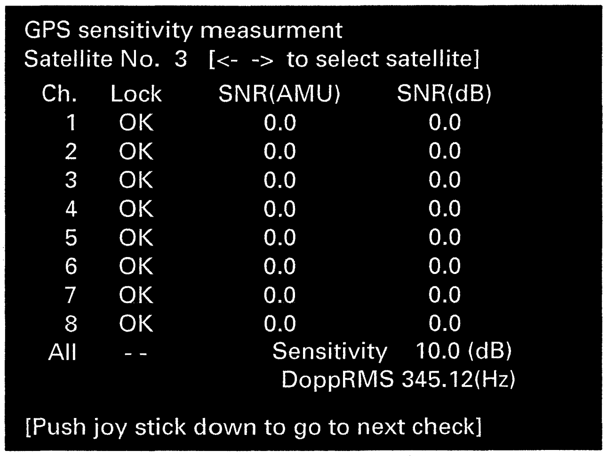
8. GPS Reception



```
GPS Self check

                      2001/01/25     10:10:05
Using satellites No.
           01  02  03  04  05  06  07  08
Antenna connection                         OK
Receiving signal level                    0.0
Latitude                  2D      0  00'00.00
Longitude                         0  00'00.00




[Push joy stick down to go to next check]
```

- The status of the GPS reception will be displayed.
- Verification is made to ensure that the antenna connection is OK and that the latitude and longitude measurements are 1 degrees or more, resulting in a three-dimensional binary measurement. If these conditions have been verified to satisfy the requirements, the process can proceed to the next step.
- The next test can be performed by pressing the [↓] key.

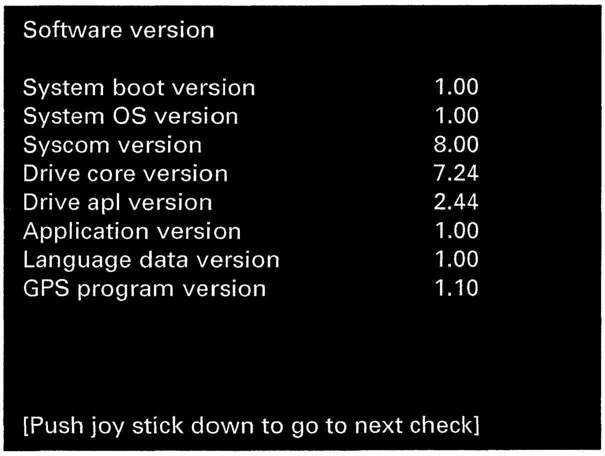
9. GPS Sensitivity Measurements



```
GPS sensitivity measurment
Satellite No.  3   [<-  ->  to select satellite]
  Ch.    Lock      SNR(AMU)        SNR(dB)
   1      OK          0.0            0.0
   2      OK          0.0            0.0
   3      OK          0.0            0.0
   4      OK          0.0            0.0
   5      OK          0.0            0.0
   6      OK          0.0            0.0
   7      OK          0.0            0.0
   8      OK          0.0            0.0
  All     - -         Sensitivity   10.0 (dB)
                       DoppRMS 345.12(Hz)

[Push joy stick down to go to next check]
```

- The sensitivity of the GPS selected by the [CR] key will be displayed.
- The GPS selection can be changed by pressing the [←] and [→] keys.
- The next test can be performed by pressing the [↓] key.

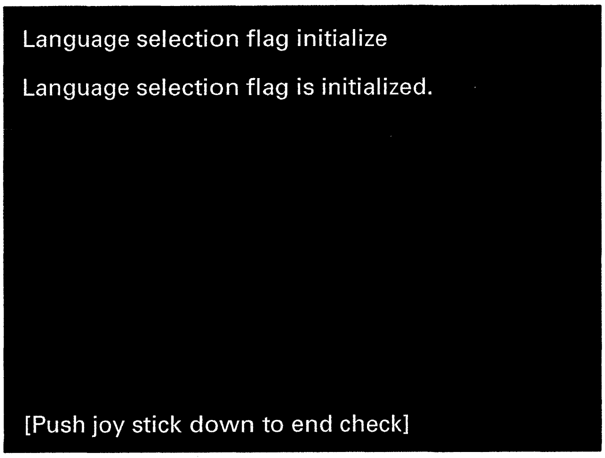
10. Software Version Display



```
Software version

System boot version              1.00
System OS version                1.00
Syscom version                   8.00
Drive core version               7.24
Drive apl version                2.44
Application version              1.00
Language data version            1.00
GPS program version              1.10




[Push joy stick down to go to next check]
```

- The software version will be displayed.
- The next test can be performed by pressing the [↓] key.

11. Language Selection Flag Initialization



Language selection flag initialize

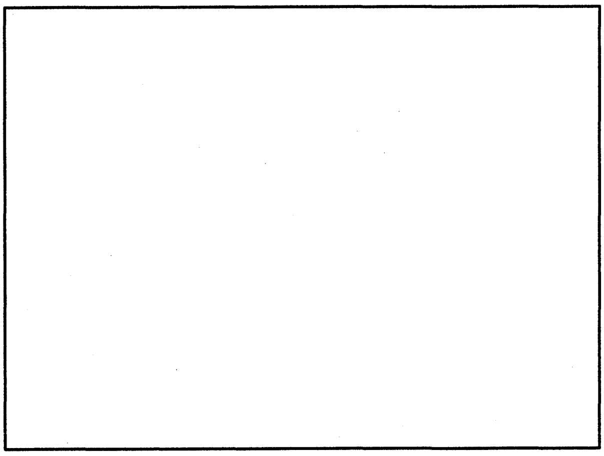
Language selection flag is initialized.

[Push joy stick down to end check]

- Settings will be reset to the shipping conditions upon entering into this test stage (no settings).
- Settings will be performed at the time this test starts.
- The [↓] key will terminate the production engineering test.

4. Menus for Service

1. Display Image RGB

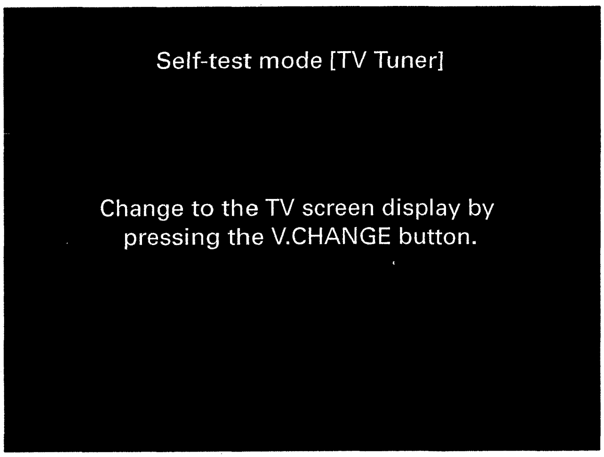


- This is a test for the RGB image display.
- The display can be switched by pressing the [←] and [→] keys.

* An RGB image display is performed in the order of R100% -> R50% -> G100% -> G50% -> B100% -> B50%.

- A total of six screen images will be displayed.

2. TV Tuner

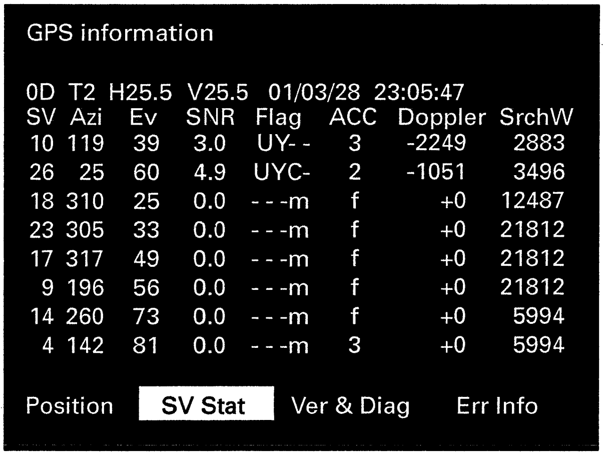


Self-test mode [TV Tuner]

Change to the TV screen display by pressing the V.CHANGE button.

- The display can be switched to the TV screen display by pressing the V.CHANGE button.
- Channels can be switched between 1, 8, 12, 13, 39 and 62 by using the up and down motion of the joystick.
- Turning and holding the joystick to the right or left causes the seek action to go up or down.
- Turning the joystick quickly to the right or left will cause the manual channel to scroll up or down.

3. GPS Information

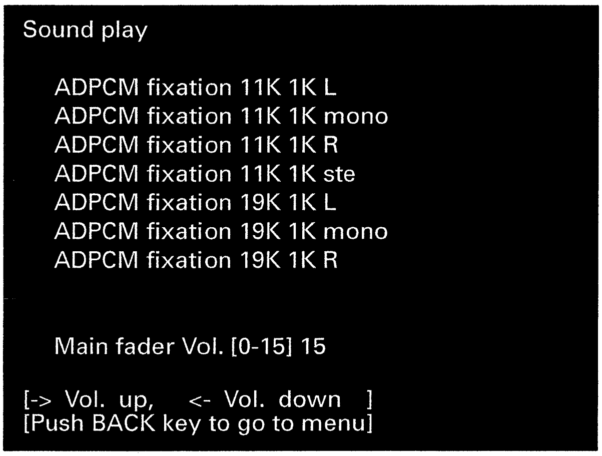


```
GPS information

0D  T2  H25.5  V25.5   01/03/28  23:05:47
SV  Azi   Ev   SNR   Flag   ACC   Doppler  SrchW
10  119   39   3.0   UY- -   3     -2249    2883
26   25   60   4.9   UYC-    2     -1051    3496
18  310   25   0.0   - - -m  f        +0   12487
23  305   33   0.0   - - -m  f        +0   21812
17  317   49   0.0   - - -m  f        +0   21812
 9  196   56   0.0   - - -m  f        +0   21812
14  260   73   0.0   - - -m  f        +0    5994
 4  142   81   0.0   - - -m  3        +0    5994

Position   SV Stat   Ver & Diag    Err Info
```

- If the cursor is over the "Position" and the [CR] key is pressed, the "Position Information" will be displayed.
- If the cursor is over the "SV Stat" and the [CR] key is pressed, the "Status Information" will be displayed.
- If the cursor is over the "Ver&Diag" and the [CR] key is pressed, the "Dialog Information" will be displayed.
- If the cursor is over the "Err Info" and the [CR] key is pressed, the "Error Information" will be displayed.

(The screen displayed shown here represent pressing the [CR] key when the cursor will be over the "SV Stat.")

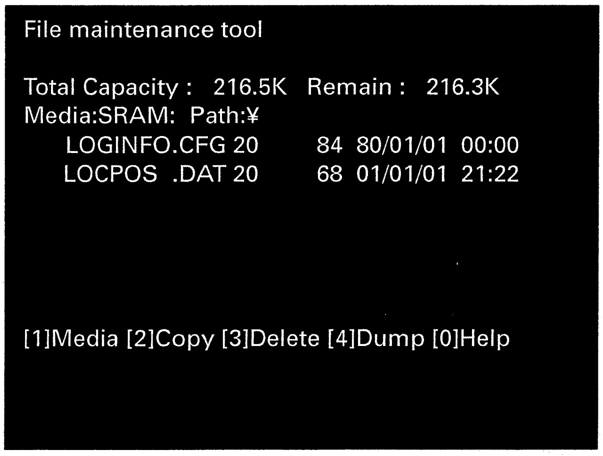
4. Audio Reproduction



```
Sound play

    ADPCM fixation 11K 1K L
    ADPCM fixation 11K 1K mono
    ADPCM fixation 11K 1K R
    ADPCM fixation 11K 1K ste
    ADPCM fixation 19K 1K L
    ADPCM fixation 19K 1K mono
    ADPCM fixation 19K 1K R


    Main fader Vol. [0-15] 15

[-> Vol. up,    <- Vol. down   ]
[Push BACK key to go to menu]
```

- The audio selected by the [CR] key will be reproduced.
- The audio selection can be changed by using the [←] and [→] keys.

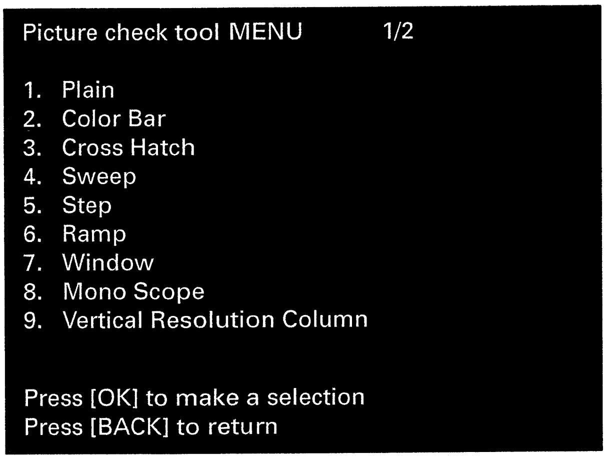
5. File Management



```
File maintenance tool

Total Capacity :  216.5K   Remain :  216.3K
Media:SRAM:  Path:¥
     LOGINFO.CFG 20       84  80/01/01  00:00
     LOCPOS  .DAT 20      68  01/01/01  21:22



[1]Media [2]Copy [3]Delete [4]Dump [0]Help
```

- The copying, deleting and dumping of files can be performed. Please refer to the HELP for details concerning the use of individual functions.

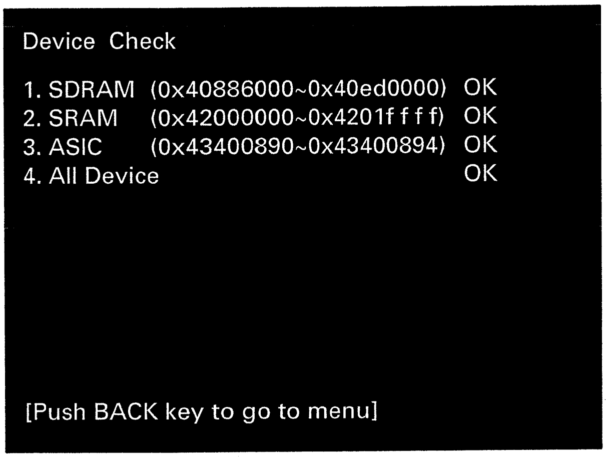
6. Display Image Check



```
Picture check tool MENU          1/2

1.  Plain
2.  Color Bar
3.  Cross Hatch
4.  Sweep
5.  Step
6.  Ramp
7.  Window
8.  Mono Scope
9.  Vertical Resolution Column


Press [OK] to make a selection
Press [BACK] to return
```

1. Plain
... White, yellow, light blue, green, purple, red and blue are displayed by using the [←] and [→] keys.
2. Color bar
... These are white, yellow, light blue, green, purple, red and blue, from left to right.
3. Cross hatch
4. Sweep
5. Step
6. Ramp
7. Window
8. Monoscope
9. Frequency line
10. Horizontal stripe 1
11. Horizontal stripe 2
12. Japanese Kanji character pattern
13. Map (map.jpg)
14. Natural image (nature.jpg)
15. Portrait 1 (hito1.jpg)
16. Portrait 2 (hito2.jpg)

7. Device Check (for technical purposes only)



```
Device  Check

1. SDRAM  (0x40886000~0x40ed0000)  OK
2. SRAM   (0x42000000~0x4201f f f f)  OK
3. ASIC   (0x43400890~0x43400894)  OK
4. All Device                       OK




[Push BACK key to go to menu]
```

- The devices listed to the left are tested for technical purposes only.
- Selections are made by pressing the [↓] and [↑] keys, and then by pressing the [CR] key.
- If the test pattern is selected, the test will start.

7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 DISASSEMBLY

● Removing the Case (not shown)

1. Remove the screw and then remove the Case.

● Removing the DVD Mechanism Module (Fig.1)

1 Remove the four screws.

Disconnect the connector and then remove the DVD Mechanism Module.

● Removing the Interface PCB (Fig.1)

2 Remove the two screws.

3 Remove the two screws.

Disconnect the connector and then remove the Interface PCB.

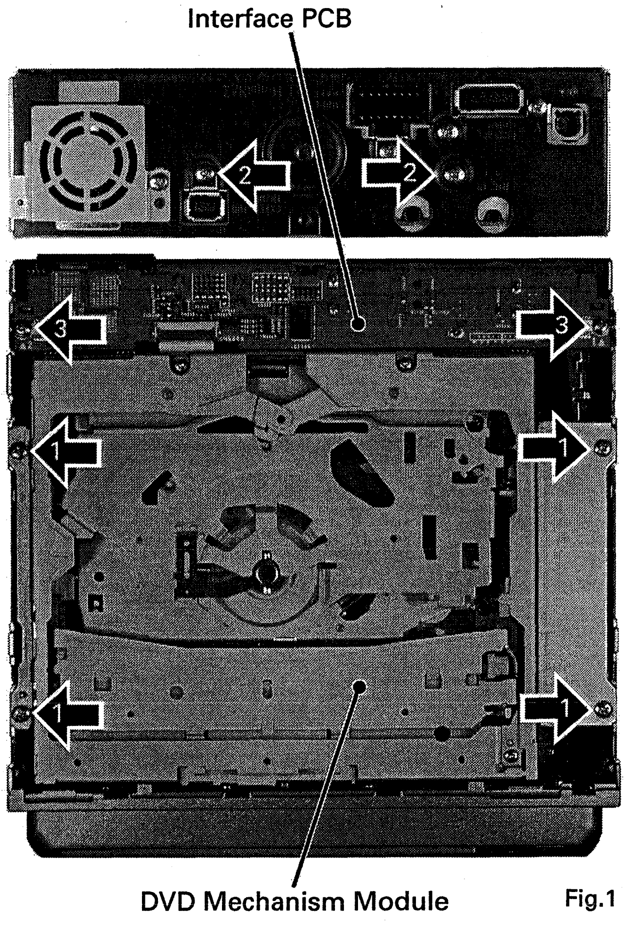


Fig.1

● Removing the Grille Assy (not shown)

1. Remove the Grille Assy.

● Removing the CC Unit (Fig.2)

1 Remove the solder and then straight the tab at location indicated.

2 Remove the three screws and then remove the CC Unit.

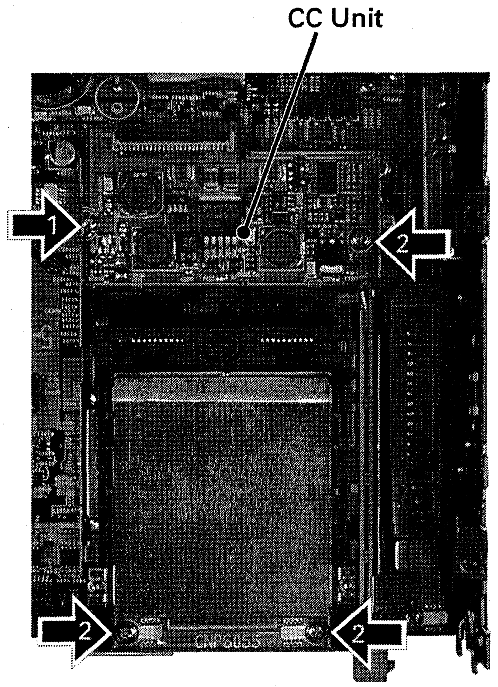


Fig.2

● Removing the Main PCB (Fig.3)

1 Remove the screw and then remove the Holder and the Battery.

2 Remove the screw and then remove the Fan Motor.

3 Remove the four screws.

4 Remove the six screws and then remove the Main PCB.

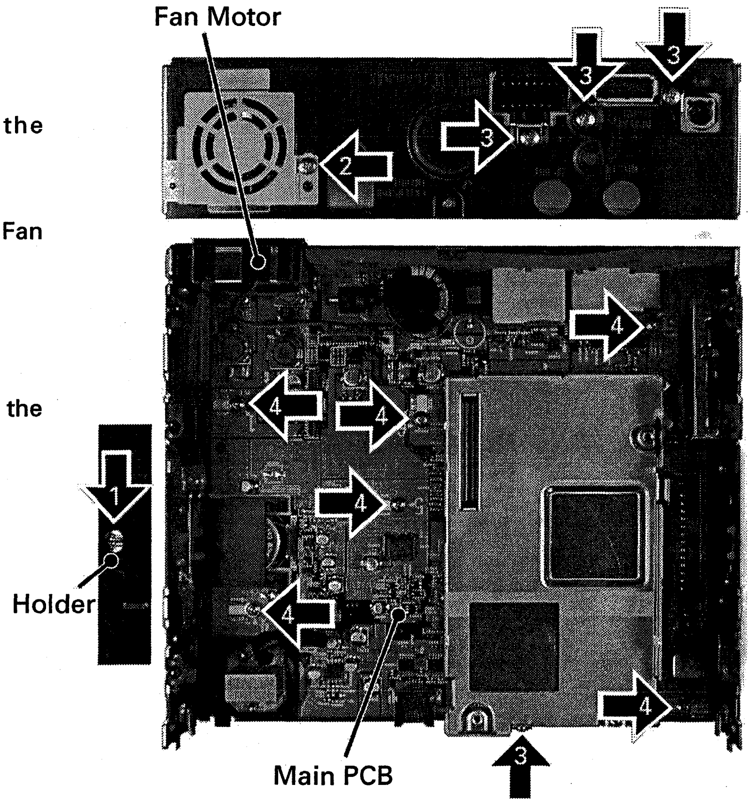
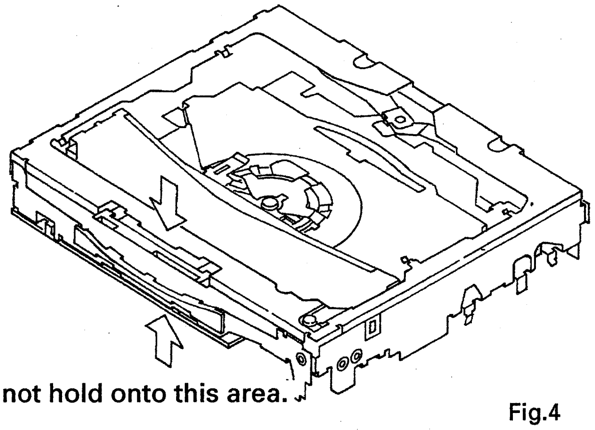

Fan Motor
3
3
3
2
3
4
4
4
1
4
Holder
4
4
Main PCB
3

Fig.3

● Handling the mechanical module

1. The mechanical module should be handled by holding the upper frame and main frame of the mechanical module.
2. The front section of the upper frame is not very sturdy, so this section should not be held too firmly (see fig.4).



Do not hold onto this area.

Fig.4

● Removing the DVD CORE UNIT

1. Bring the mechanism to a locked position (disk load standby position).
2. Turn the mechanical module upside down.
3. Set the pick-up flexible cable to a shorted position on the land end (the other is auxiliary), and turn the SW knob in the direction opposite to OP (see fig.5).
4. Remove the pick-up flexible cable and the CRG flexible cable from the connector. Remove the solder on the lead wires of the load motor.
5. Remove screws at three locations, and remove the DVD Core Unit (lift the board in the direction of the white arrow shown in fig.6, and remove it out diagonally).

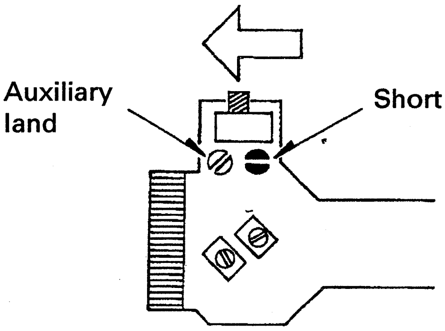


Fig.5

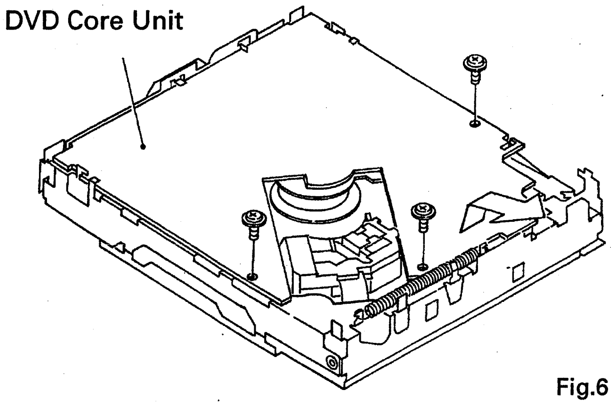


Fig.6

● Removing the PU unit (see fig.7)

1. Remove the DVD Core Unit according to the "Removing the DVD Core Unit" procedure described in the previous page.
2. Lift the pick-up rack to the center of the axis of the rack, turn it 90 degrees first, then press on it lightly, and fix it in place temporarily.
3. Remove the screw that keeps the main shaft clamp spring in place, and remove the main shaft clamp spring.
4. Remove the PU unit with the main shaft attached.

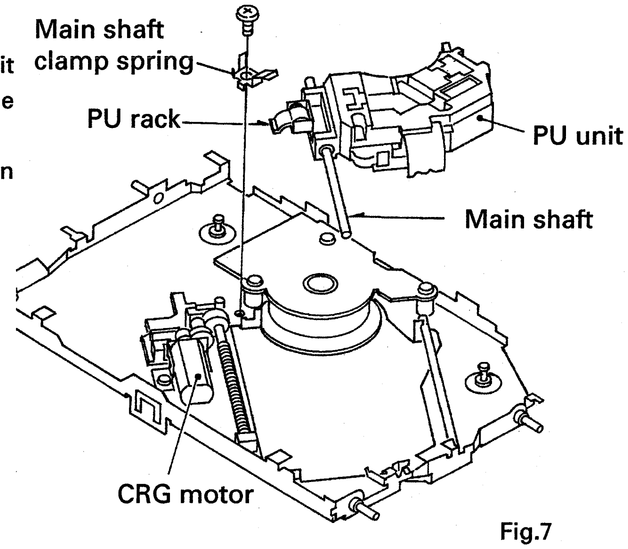
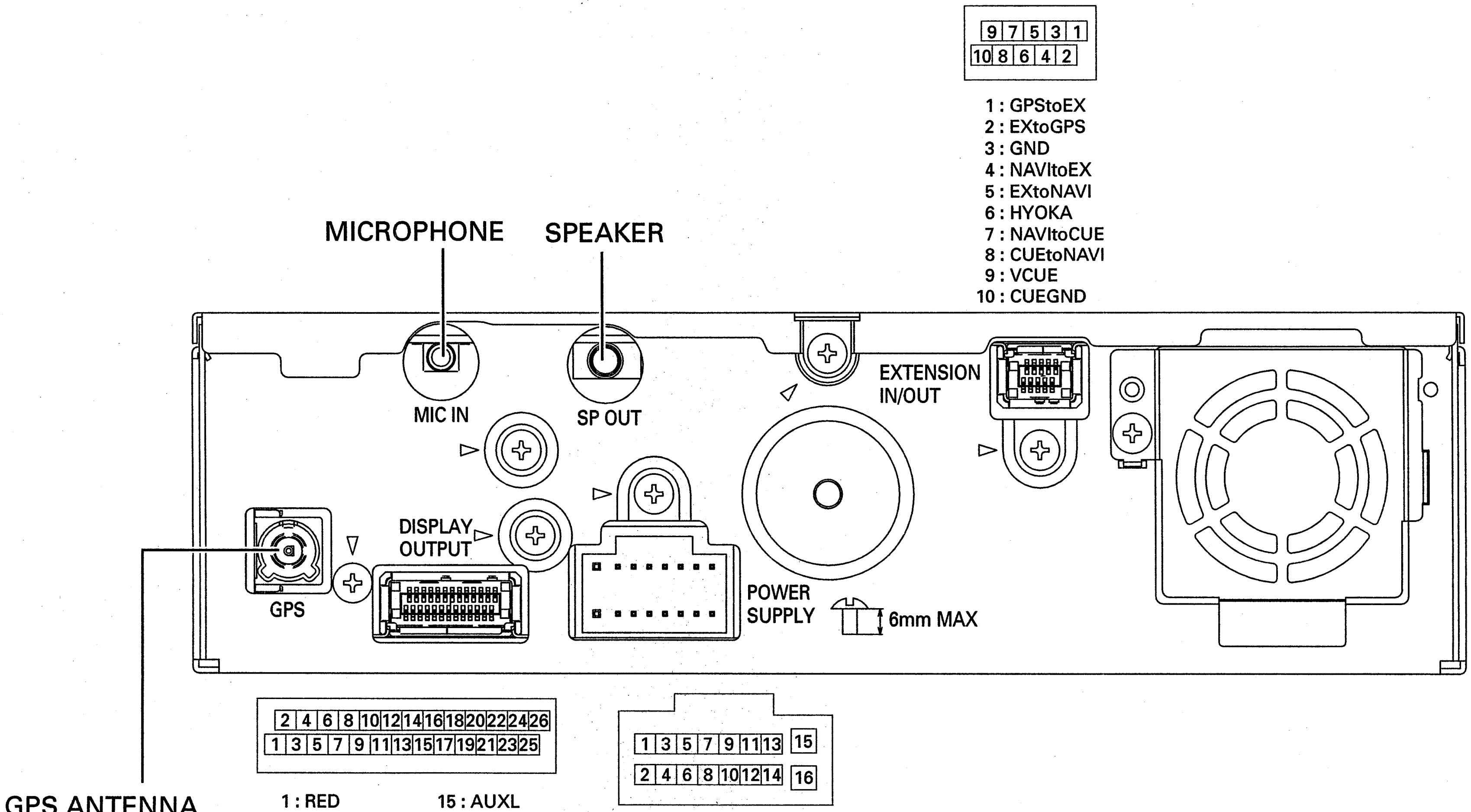


Fig.7

7.1.2 CONNECTOR FUNCTION DESCRIPTION

● AVIC-90DVD/UC

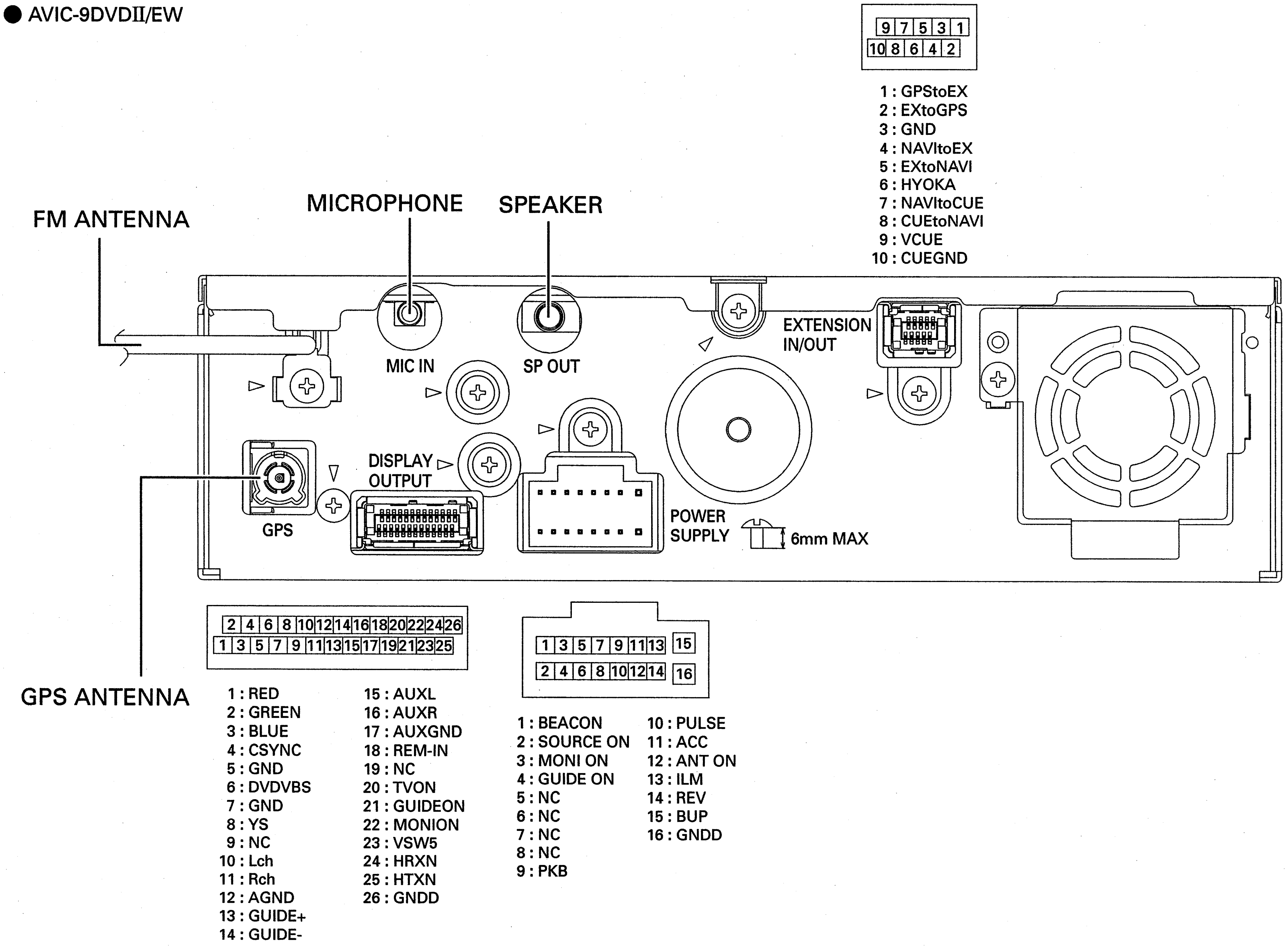

9 7 5 3 1
10 8 6 4 2
MICROPHONE
SPEAKER
MIC IN
SP OUT
EXTENSION IN/OUT
DISPLAY OUTPUT
GPS
POWER SUPPLY
6mm MAX
GPS ANTENNA
2 4 6 8 10 12 14 16 18 20 22 24 26
1 3 5 7 9 11 13 15 17 19 21 23 25
1 3 5 7 9 11 13 15
2 4 6 8 10 12 14 16

1 : GPStoEX
2 : EXtoGPS
3 : GND
4 : NAVItoEX
5 : EXtoNAVI
6 : HYOKA
7 : NAVItoCUE
8 : CUEtoNAVI
9 : VCUE
10 : CUEGND

1 : RED
2 : GREEN
3 : BLUE
4 : CSYNC
5 : GND
6 : DVDVBS
7 : GND
8 : YS
9 : NC
10 : Lch
11 : Rch
12 : AGND
13 : GUIDE+
14 : GUIDE-
15 : AUXL
16 : AUXR
17 : AUXGND
18 : REM-IN
19 : NC
20 : TVON
21 : GUIDEON
22 : MONION
23 : VSW5
24 : HRXN
25 : HTXN
26 : GNDD

1 : BEACON
2 : SOURCE ON
3 : MONI ON
4 : GUIDE ON
5 : NC
6 : NC
7 : NC
8 : NC
9 : PKB
10 : PULSE
11 : ACC
12 : ANT ON
13 : ILM
14 : REV
15 : BUP
16 : GNDD

● AVIC-9DVDII/EW



FM ANTENNA
MICROPHONE
SPEAKER
GPS ANTENNA
MIC IN
SP OUT
EXTENSION IN/OUT
DISPLAY OUTPUT
GPS
POWER SUPPLY
6mm MAX
9 7 5 3 1
10 8 6 4 2
2 4 6 8 10 12 14 16 18 20 22 24 26
1 3 5 7 9 11 13 15 17 19 21 23 25
1 3 5 7 9 11 13 15
2 4 6 8 10 12 14 16

1 : GPStoEX
2 : EXtoGPS
3 : GND
4 : NAVItoEX
5 : EXtoNAVI
6 : HYOKA
7 : NAVItoCUE
8 : CUEtoNAVI
9 : VCUE
10 : CUEGND

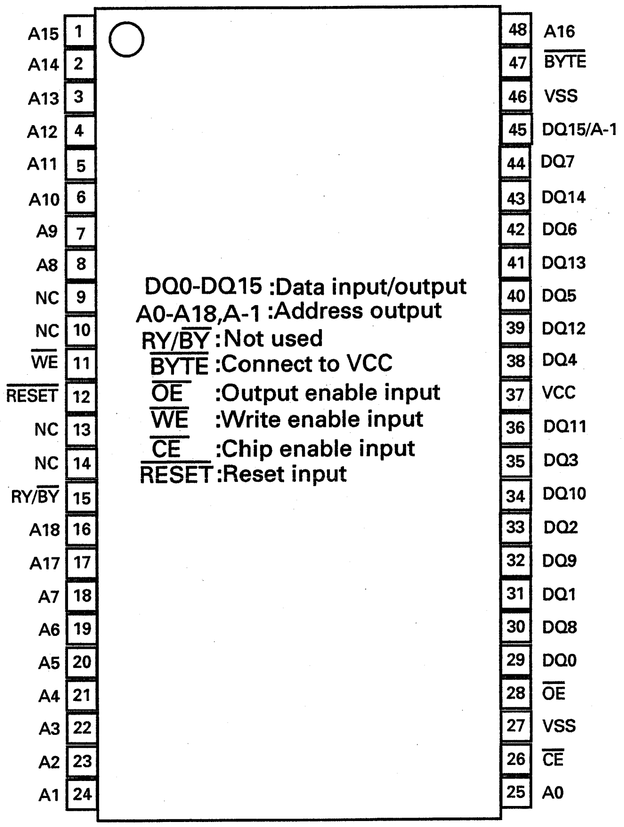
1 : RED
2 : GREEN
3 : BLUE
4 : CSYNC
5 : GND
6 : DVDVBS
7 : GND
8 : YS
9 : NC
10 : Lch
11 : Rch
12 : AGND
13 : GUIDE+
14 : GUIDE-
15 : AUXL
16 : AUXR
17 : AUXGND
18 : REM-IN
19 : NC
20 : TVON
21 : GUIDEON
22 : MONION
23 : VSW5
24 : HRXN
25 : HTXN
26 : GNDD

1 : BEACON
2 : SOURCE ON
3 : MONI ON
4 : GUIDE ON
5 : NC
6 : NC
7 : NC
8 : NC
9 : PKB
10 : PULSE
11 : ACC
12 : ANT ON
13 : ILM
14 : REV
15 : BUP
16 : GNDD

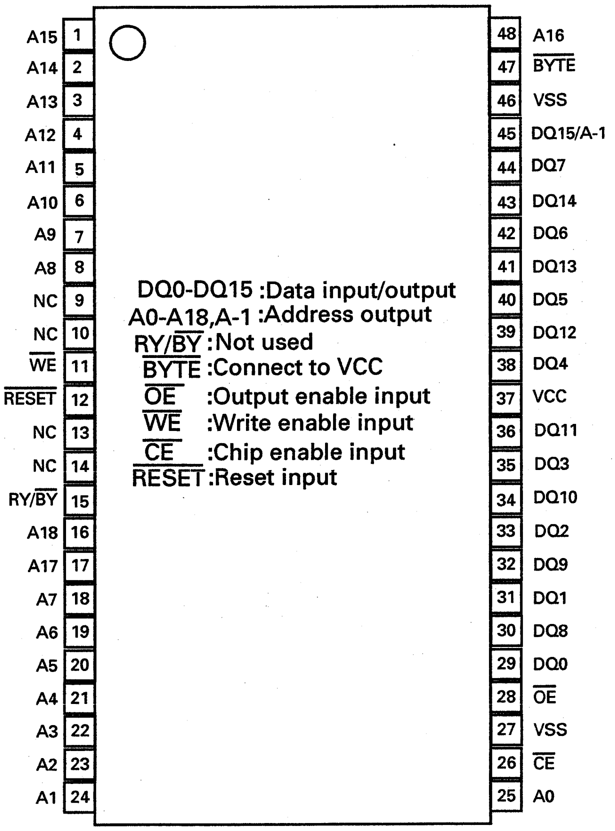
7.2 IC

PD6403B
PD6401B
PD6404B
PD6402B
MB86291APFVS-G-DL
K4S281632D-TL1L
ADC12H034CIMSA
PD6396B
PE5324C
PD6336B
PD3390A
PE5228A
TDA7052A
LC72720YVS
PD6361B
TC74LCX541FT

*PD6403B(AVIC-90DVD/UC)
*PD6401B(AVIC-9DVDII/EW)

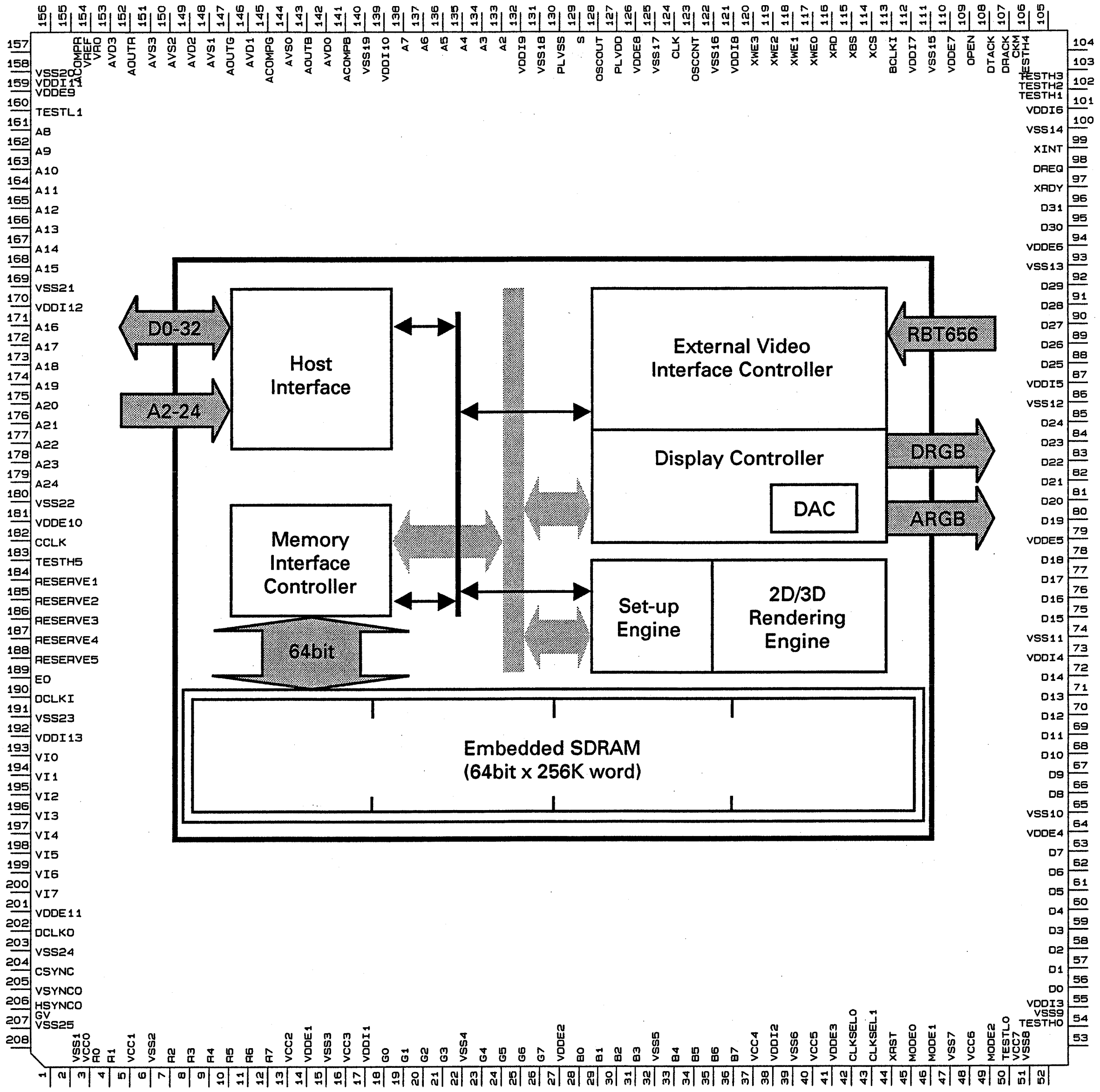

A15 1
A14 2
A13 3
A12 4
A11 5
A10 6
A9 7
A8 8
NC 9
NC 10
WE 11
RESET 12
NC 13
NC 14
RY/BY 15
A18 16
A17 17
A7 18
A6 19
A5 20
A4 21
A3 22
A2 23
A1 24
48 A16
47 BYTE
46 VSS
45 DQ15/A-1
44 DQ7
43 DQ14
42 DQ6
41 DQ13
40 DQ5
39 DQ12
38 DQ4
37 VCC
36 DQ11
35 DQ3
34 DQ10
33 DQ2
32 DQ9
31 DQ1
30 DQ8
29 DQ0
28 OE
27 VSS
26 CE
25 A0
DQ0-DQ15 :Data input/output
A0-A18,A-1 :Address output
RY/BY :Not used
BYTE :Connect to VCC
OE :Output enable input
WE :Write enable input
CE :Chip enable input
RESET :Reset input

*PD6404B(AVIC-90DVD/UC)
*PD6402B(AVIC-9DVDII/EW)

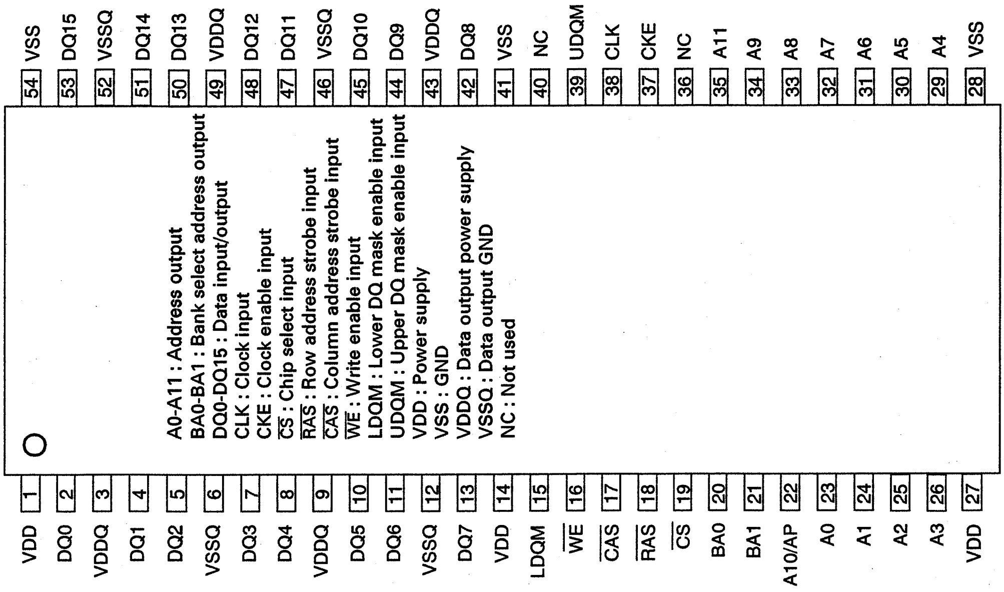

A15 1
A14 2
A13 3
A12 4
A11 5
A10 6
A9 7
A8 8
NC 9
NC 10
WE 11
RESET 12
NC 13
NC 14
RY/BY 15
A18 16
A17 17
A7 18
A6 19
A5 20
A4 21
A3 22
A2 23
A1 24
48 A16
47 BYTE
46 VSS
45 DQ15/A-1
44 DQ7
43 DQ14
42 DQ6
41 DQ13
40 DQ5
39 DQ12
38 DQ4
37 VCC
36 DQ11
35 DQ3
34 DQ10
33 DQ2
32 DQ9
31 DQ1
30 DQ8
29 DQ0
28 OE
27 VSS
26 CE
25 A0
DQ0-DQ15 :Data input/output
A0-A18,A-1 :Address output
RY/BY :Not used
BYTE :Connect to VCC
OE :Output enable input
WE :Write enable input
CE :Chip enable input
RESET :Reset input

IC's marked by * are MOS type.
Be careful in handling them because they are very liable to be damaged by electrostatic induction.

*MB86291APFVS-G-DL

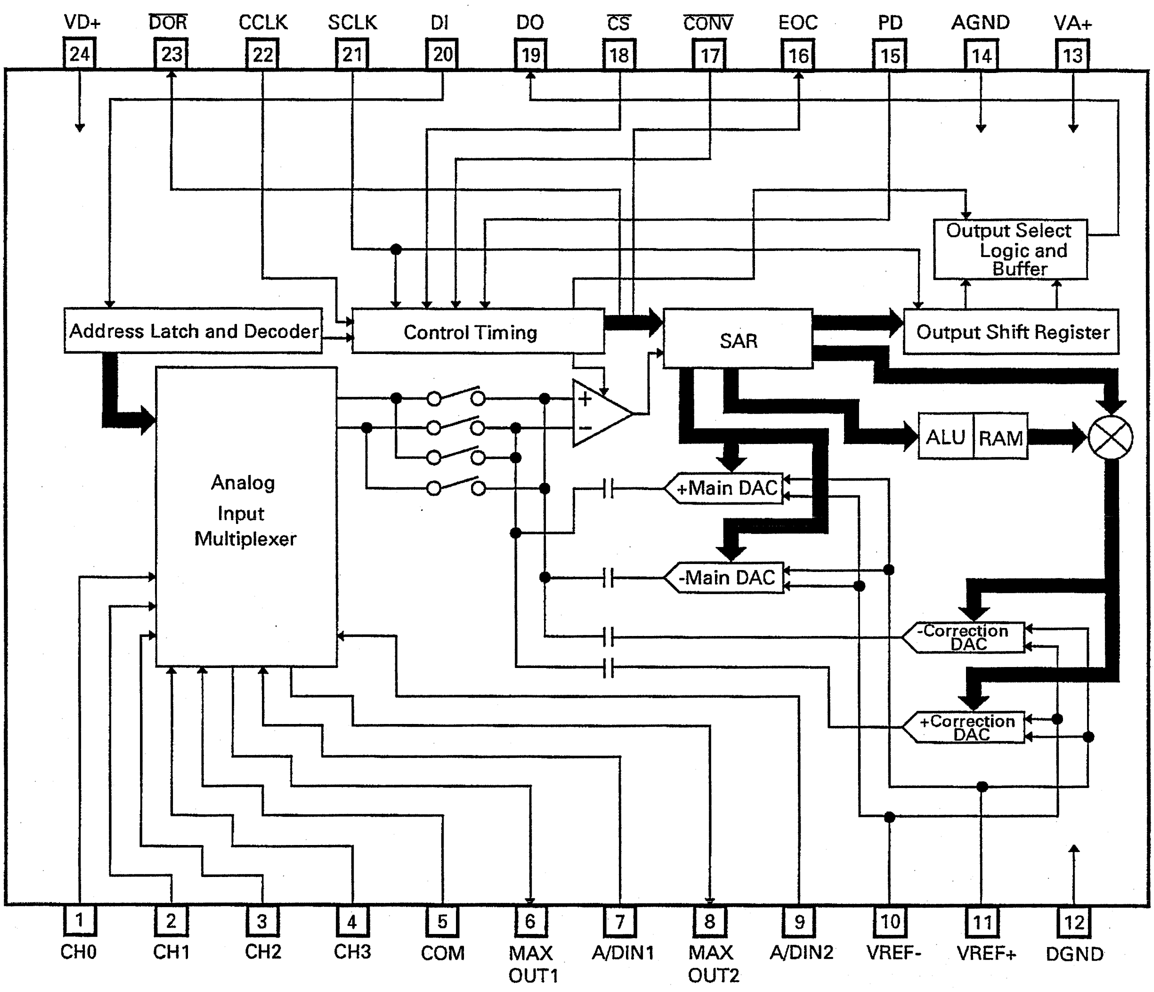

D0-32
A2-24
Host Interface
Memory Interface Controller
64bit
External Video Interface Controller
Display Controller
DAC
RBT656
DRGB
ARGB
Set-up Engine
2D/3D Rendering Engine
Embedded SDRAM (64bit x 256K word)
VSS20
VDDI11
VDDE9
TESTL1
A8
A9
A10
A11
A12
A13
A14
A15
VSS21
VDDI12
A16
A17
A18
A19
A20
A21
A22
A23
A24
VSS22
VDDE10
CCLK
TESTH5
RESERVE1
RESERVE2
RESERVE3
RESERVE4
RESERVE5
EO
DCLKI
VSS23
VDDI13
VI0
VI1
VI2
VI3
VI4
VI5
VI6
VI7
VDDE11
DCLKO
VSS24
CSYNC
VSYNCO
HSYNCO
GV
VSS25
TESTH3
TESTH2
TESTH1
VDDI6
VSS14
XINT
DREQ
XRDY
D31
D30
VDDE6
VSS13
D29
D28
D27
D26
D25
VDDI5
VSS12
D24
D23
D22
D21
D20
D19
VDDE5
D18
D17
D16
D15
VSS11
VDDI4
D14
D13
D12
D11
D10
D9
D8
VSS10
VDDE4
D7
D6
D5
D4
D3
D2
D1
D0
VDDI3
VSS9
TESTH0
COMPR
VREF
VRO
AVD3
AOUTR
AVS3
AVS2
AVD2
AVS1
AOUTG
AVD1
ACOMPG
AVS0
AOUTB
AVD0
ACOMPB
VSS19
VDDI10
A7
A6
A5
A4
A3
A2
VDDI9
VSS18
PLVSS
S
OSCOUT
PLVDD
VDDE8
VSS17
CLK
OSCCNT
VSS16
VDDI8
XWE3
XWE2
XWE1
XWE0
XRD
XBS
XCS
BCLKI
VDDI7
VSS15
VDDE7
OPEN
DTACK
DRACK
CKM
TESTH4
VSS1
VCC0
R0
R1
VCC1
VSS2
R2
R3
R4
R5
R6
R7
VCC2
VDDE1
VSS3
VCC3
VDDI1
G0
G1
G2
G3
VSS4
G4
G5
G6
G7
VDDE2
B0
B1
B2
B3
VSS5
B4
B5
B6
B7
VCC4
VDDI2
VSS6
VCC5
VDDE3
CLKSEL0
CLKSEL1
XRST
MODE0
MODE1
VSS7
VCC6
MODE2
TESTL0
VCC7
VSS8

*K4S281632D-TL1L

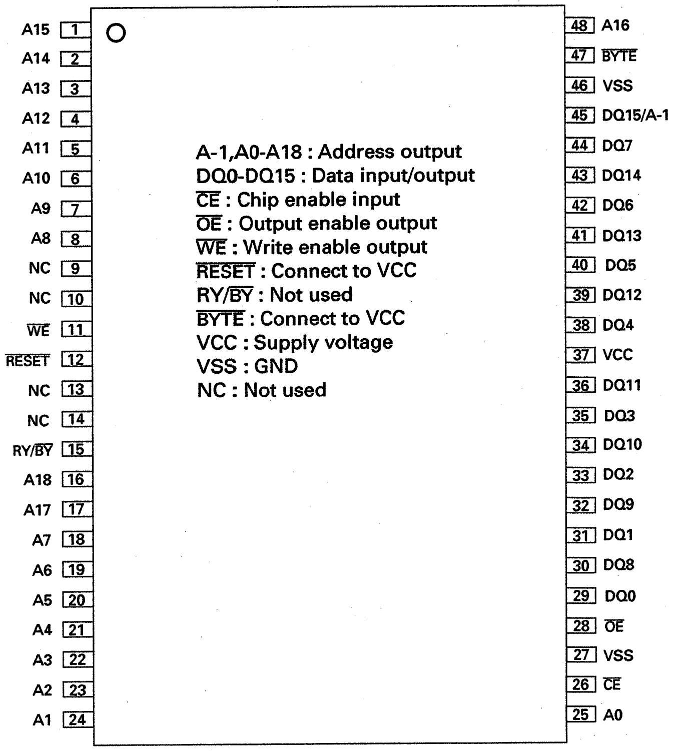

VSS
DQ15
VSSQ
DQ14
DQ13
VDDQ
DQ12
DQ11
VSSQ
DQ10
DQ9
VDDQ
DQ8
VSS
NC
UDQM
CLK
CKE
NC
A11
A9
A8
A7
A6
A5
A4
VSS
VDD
DQ0
VDDQ
DQ1
DQ2
VSSQ
DQ3
DQ4
VDDQ
DQ5
DQ6
VSSQ
DQ7
VDD
LDQM
WE
CAS
RAS
CS
BA0
BA1
A10/AP
A0
A1
A2
A3
VDD

A0-A11 : Address output
BA0-BA1 : Bank select address output
DQ0-DQ15 : Data input/output
CLK : Clock input
CKE : Clock enable input
CS : Chip select input
RAS : Row address strobe input
CAS : Column address strobe input
WE : Write enable input
LDQM : Lower DQ mask enable input
UDQM : Upper DQ mask enable input
VDD : Power supply
VSS : GND
VDDQ : Data output power supply
VSSQ : Data output GND
NC : Not used

*ADC12H034CIMSA

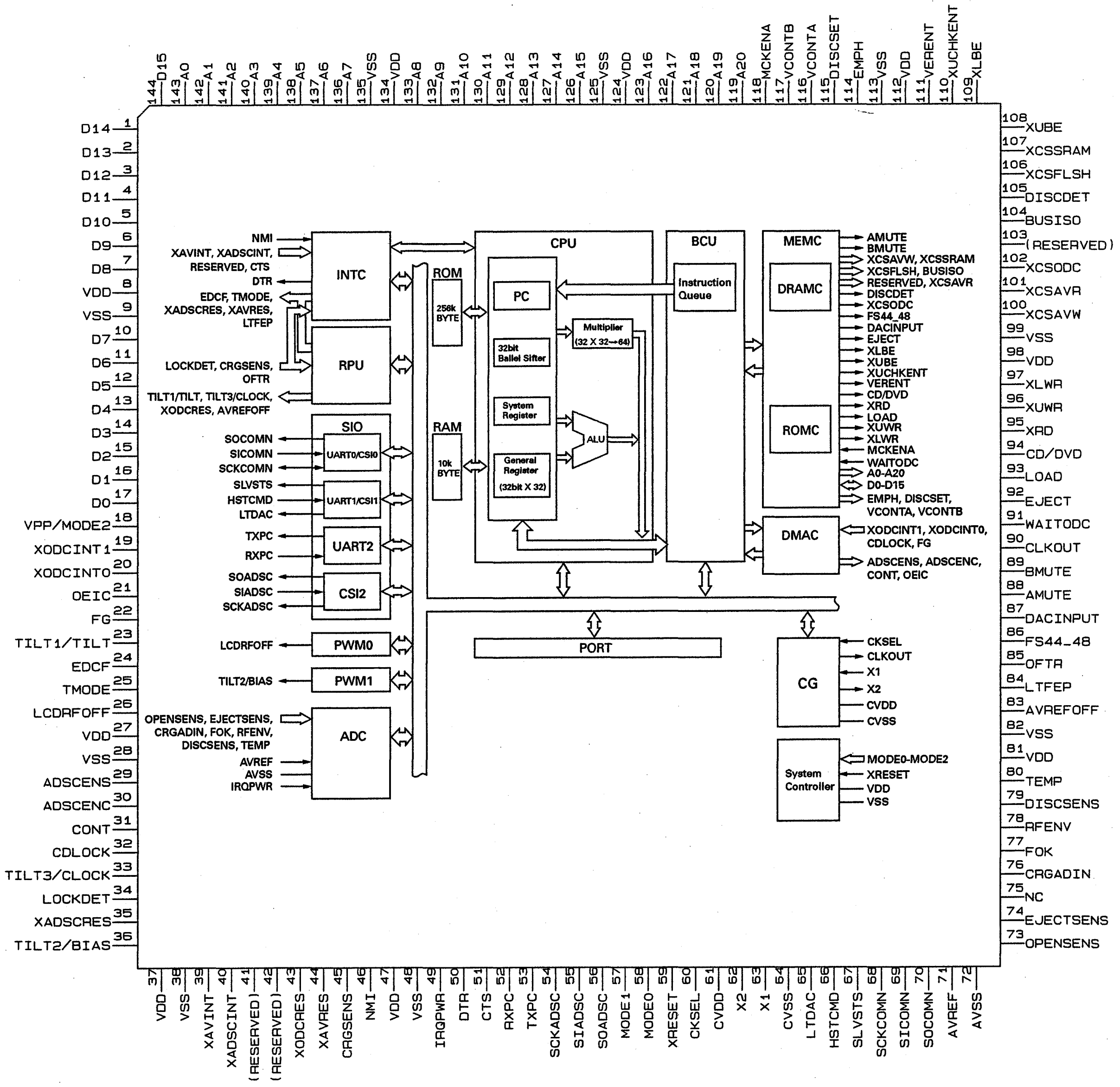

VD+
24
DOR
23
CCLK
22
SCLK
21
DI
20
DO
19
CS
18
CONV
17
EOC
16
PD
15
AGND
14
VA+
13
Output Select Logic and Buffer
Address Latch and Decoder
Control Timing
SAR
Output Shift Register
ALU
RAM
Analog Input Multiplexer
+
-
+Main DAC
-Main DAC
-Correction DAC
+Correction DAC
1
CH0
2
CH1
3
CH2
4
CH3
5
COM
6
MAX OUT1
7
A/DIN1
8
MAX OUT2
9
A/DIN2
10
VREF-
11
VREF+
12
DGND

*PD6396B


A15 1
A14 2
A13 3
A12 4
A11 5
A10 6
A9 7
A8 8
NC 9
NC 10
WE 11
RESET 12
NC 13
NC 14
RY/BY 15
A18 16
A17 17
A7 18
A6 19
A5 20
A4 21
A3 22
A2 23
A1 24
48 A16
47 BYTE
46 VSS
45 DQ15/A-1
44 DQ7
43 DQ14
42 DQ6
41 DQ13
40 DQ5
39 DQ12
38 DQ4
37 VCC
36 DQ11
35 DQ3
34 DQ10
33 DQ2
32 DQ9
31 DQ1
30 DQ8
29 DQ0
28 OE
27 VSS
26 CE
25 A0

A-1,A0-A18 : Address output
DQ0-DQ15 : Data input/output
CE : Chip enable input
OE : Output enable output
WE : Write enable output
RESET : Connect to VCC
RY/BY : Not used
BYTE : Connect to VCC
VCC : Supply voltage
VSS : GND
NC : Not used

*PE5324C


1 D14
2 D13
3 D12
4 D11
5 D10
6 D9
7 D8
8 VDD
9 VSS
10 D7
11 D6
12 D5
13 D4
14 D3
15 D2
16 D1
17 D0
18 VPP/MODE2
19 XODCINT1
20 XODCINT0
21 OEIC
22 FG
23 TILT1/TILT
24 EDCF
25 TMODE
26 LCDRFOFF
27 VDD
28 VSS
29 ADSCENS
30 ADSCENC
31 CONT
32 CDLOCK
33 TILT3/CLOCK
34 LOCKDET
35 XADSCRES
36 TILT2/BIAS
37 VDD
38 VSS
39 XAVINT
40 XADSCINT
41 (RESERVED)
42 (RESERVED)
43 XODCRES
44 XAVRES
45 CRGSENS
46 NMI
47 VDD
48 VSS
49 IRQPWR
50 DTR
51 CTS
52 RXPC
53 TXPC
54 SCKADSC
55 SIADSC
56 SOADSC
57 MODE1
58 MODE0
59 XRESET
60 CKSEL
61 CVDD
62 X2
63 X1
64 CVSS
65 LTDAC
66 HSTCMD
67 SLVSTS
68 SCKCOMN
69 SICOMN
70 SOCOMN
71 AVREF
72 AVSS
73 OPENSENS
74 EJECTSENS
75 NC
76 CRGADIN
77 FOK
78 RFENV
79 DISCSENS
80 TEMP
81 VDD
82 VSS
83 AVREFOFF
84 LTFEP
85 OFTR
86 FS44_48
87 DACINPUT
88 AMUTE
89 BMUTE
90 CLKOUT
91 WAITODC
92 EJECT
93 LOAD
94 CD/DVD
95 XRD
96 XUWR
97 XLWR
98 VDD
99 VSS
100 XCSAVW
101 XCSAVR
102 XCSODC
103 (RESERVED)
104 BUSISO
105 DISCDET
106 XCSFLSH
107 XCSSRAM
108 XUBE
109 XLBE
110 XUCHKENT
111 VERENT
112 VDD
113 VSS
114 EMPH
115 DISCSET
116 VCONTA
117 VCONTB
118 MCKENA
119 A20
120 A19
121 A18
122 A17
123 A16
124 VDD
125 VSS
126 A15
127 A14
128 A13
129 A12
130 A11
131 A10
132 A9
133 A8
134 VDD
135 VSS
136 A7
137 A6
138 A5
139 A4
140 A3
141 A2
142 A1
143 A0
144 D15
NMI
XAVINT, XADSCINT, RESERVED, CTS
DTR
EDCF, TMODE, XADSCRES, XAVRES, LTFEP
INTC
LOCKDET, CRGSENS, OFTR
RPU
TILT1/TILT, TILT3/CLOCK, XODCRES, AVREFOFF
SIO
SOCOMN
SICOMN
SCKCOMN
UART0/CSI0
SLVSTS
HSTCMD
LTDAC
UART1/CSI1
TXPC
RXPC
UART2
SOADSC
SIADSC
SCKADSC
CSI2
LCDRFOFF
PWM0
TILT2/BIAS
PWM1
OPENSENS, EJECTSENS, CRGADIN, FOK, RFENV, DISCSENS, TEMP
AVREF
AVSS
IRQPWR
ADC
ROM
256k BYTE
RAM
10k BYTE
CPU
PC
32bit Ballel Sifter
System Register
General Register (32bit X 32)
Multiplier (32 X 32→64)
ALU
BCU
Instruction Queue
MEMC
DRAMC
ROMC
AMUTE
BMUTE
XCSAVW, XCSSRAM
XCSFLSH, BUSISO
RESERVED, XCSAVR
DISCDET
XCSODC
FS44_48
DACINPUT
EJECT
XLBE
XUBE
XUCHKENT
VERENT
CD/DVD
XRD
LOAD
XUWR
XLWR
MCKENA
WAITODC
A0-A20
D0-D15
EMPH, DISCSET, VCONTA, VCONTB
DMAC
XODCINT1, XODCINT0, CDLOCK, FG
ADSCENS, ADSCENC, CONT, OEIC
PORT
CG
CKSEL
CLKOUT
X1
X2
CVDD
CVSS
System Controller
MODE0-MODE2
XRESET
VDD
VSS

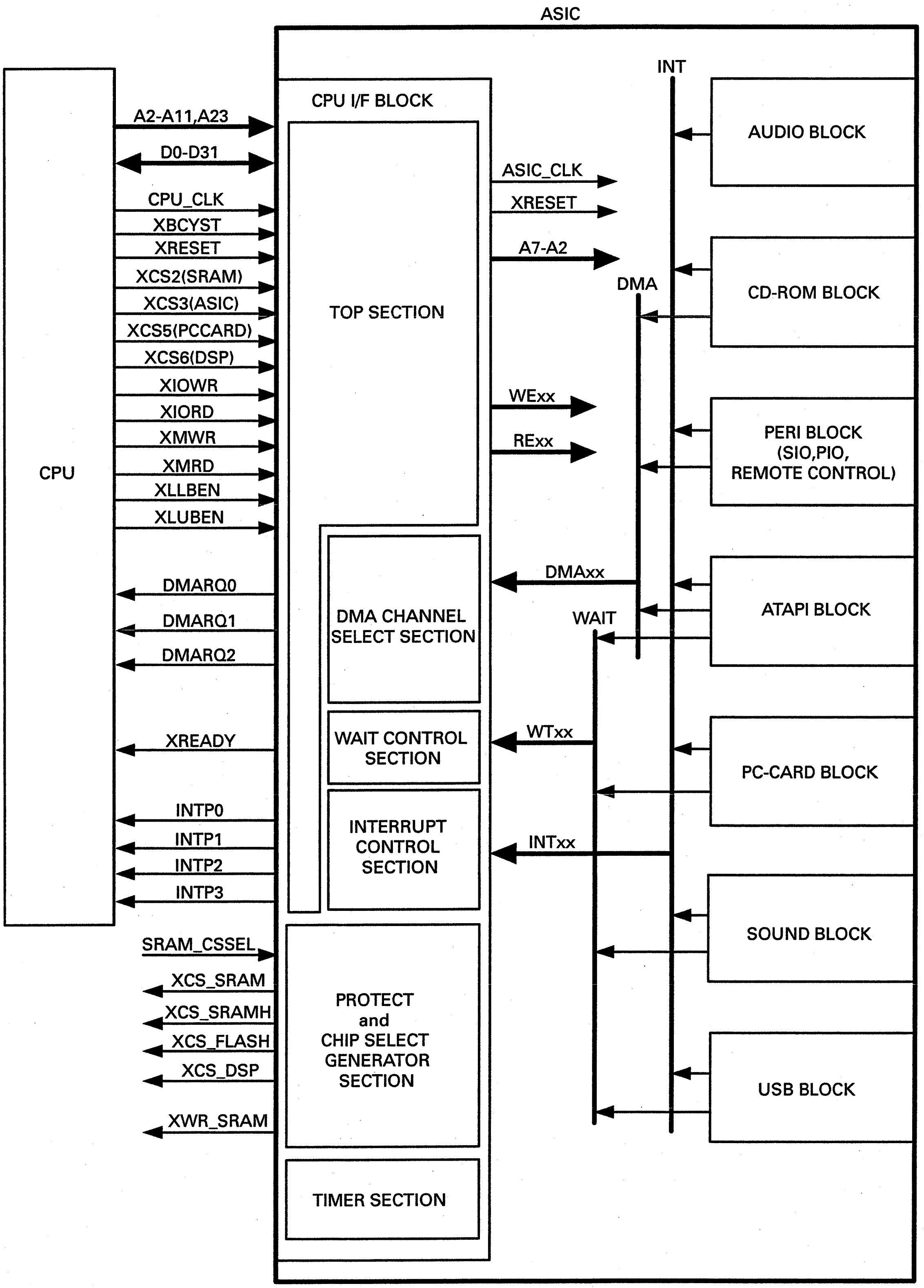
*PD6336B

● Pin Arrangement Chart

1	84	83	82	81	80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64
2	85	160	159	158	157	156	155	154	153	152	151	150	149	148	147	146	145	144	143	142	63
3	86	161	228	227	226	225	224	223	222	221	220	219	218	217	216	215	214	213	212	141	62
4	87	162	229	288	287	286	285	284	283	282	281	280	279	278	277	276	275	274	211	140	61
5	88	163	230															273	210	139	60
6	89	164	231															272	209	138	59
7	90	165	232															271	208	137	58
8	91	166	233															270	207	136	57
9	92	167	234															269	206	135	56
10	93	168	235															268	205	134	55
11	94	169	236							TOP VEIW								267	204	133	54
12	95	170	237															266	203	132	53
13	96	171	238															265	202	131	52
14	97	172	239															264	201	130	51
15	98	173	240															263	200	129	50
16	99	174	241															262	199	128	49
17	100	175	242															261	198	127	48
18	101	176	243															260	197	126	47
19	102	177	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	196	125	46
20	103	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	124	45
21	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	44
22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43

VSS	PIO27	DSP_BCLKI	PIO25	PIO24	PIO22	OVDD3	DSP_BDI	DSP_BFSI	DSP_XHINT	DSP_HRDY	OVSS6	DSP_BFSO	DSP_BCLKO	XCS_SRAMH	OVDD2	DSP_XRS	DSP_ATTCNT	D31	CD_MCLK	ADC_GCNT2	VSS
PIO29	PIO28	PIO26	D4	D6	OVSS7	D10	XCS_DSP	D14	PIO23	D18	D20	DSP_BDO	D24	PIO_OUT	OVSS5	TEST1	CD_LRCLK	CD_BLK	ADC_GCNT0	ADC_GCNT1	ADC_DATA
USBXPWREN	XCS_FLASH	D2	D3	D5	D8	D9	D12	D13	D16	D17	D19	D22	D23	D26	D27	D29	D30	A2	A3	ADC_BCLK	ADC_LRCLK
USBXOVRCUR	D0	D1	VSS	VDD	D7	VDD	D11	VSS	D15	VDD	VDD	D21	VSS	D25	VDD	D28	VSS	VSS	A4	ADC_MCLK	TEST4
UVD1M	XMRD	XMWR	VSS															VDD	A5	A6	EXTAL1
UVD1P	USBPWREN	XLLBEN	XLUBEN															VPDP	A7	A8	OVSS4
UVD2M	XIOWR	XIORD	VDD															VDD	A9	A10	XTAL1
UVD2P	NC	NC	NC															A11	A12	TEST2	TEST3
USBOVRCUR	NC	NC	VSS															VSS	PC_READY	DAC_MCLK	DAC_LRCLK
USB_CLK	NC	NC	NC															PC_XVS2	PC_RESET	DAC_BCLK	DAC_DATA
XCS_SRAM	XREADY	XBCYST	VDD							TOP VEIW								VDD	PC_WXT	PC_XREG	PIO21
XWR_SRAM	SRAM_CSSEL	XCS2	VDD															VDD	PC_BVD2	PC_A0	OVSS3
PIO31	PIO30	XCS3	XCS5															PC_BVD1	PC_WP	PIO20	CD_DATA
IR_RX	XCS6	DREQ0	VSS															VSS	PC_XCD2	PIO19	PIO18
TEST0	XTST	DREQ1	DREQ2															PC_XCD1	PC_XCE1	PIO17	PIO16
XTAL0	SMCK	INT3	VDD															VDD	PC_XCE2	PIO15	PIO14
MST	XSM	INT2	INT1															PC_XOE	PC_XVS1	PIO13	PIO12
EXTAL0	GDC_WT	INT0	VDD															VSS	PC_XIORD	PIO11	PIO10
UART9_TXD	UART9_RXD	ATA_DA0	VSS	VSS	ATA_XDIOR	VDD	ATA_DD1	VSS	ATA_DD5	VDD	VDD	ATA_DD10	VSS	ATA_DD14	VDD	ATA_XCS0	VDD	VSS	PC_XIOWR	PIO9	PIO8
UART8_TXD	UART8_RXD	ATA_DA1	ATA_INT	ATA_XDMACK	ATA_IORDY	ATA_DMARQ	ATA_DD0	ATA_DD3	ATA_DD4	ATA_DD7	ATA_DD8	ATA_DD9	ATA_DD12	ATA_DD13	ATA_DA2	ATA_XCS1	PC_XPWR	PC_XUBUF	PC_XWE	PIO7	PIO6
UART7_TXD	UART7_RXD	UART6_RXD	OVSS0	UART4_RXD	XRESET	ATA_XDIOW	UART3_RXD	ATA_DD2	UART1_RXD	ATA_DD6	ATA_XRESET	UART_XDCD	ATA_DD11	UART_XRI	ATA_DD15	UART1_XDTR	ATA_DIR	PC_XLBUF	PIO2	PIO5	PIO4
VSS	UART6_TXD	UART5_RXD	UART5_TXD	UART4_TXD	UART3_TXD	OVDD0	UART2_TXD	UART2_RXD	UART1_TXD	A23	CPU_CLK	OVSS1	UART1_XCTS	UART_XDSR	OVDD1	UART1_XRTS	PIO0	PIO1	OVSS2	PIO3	VSS

● Block Diagram Chart

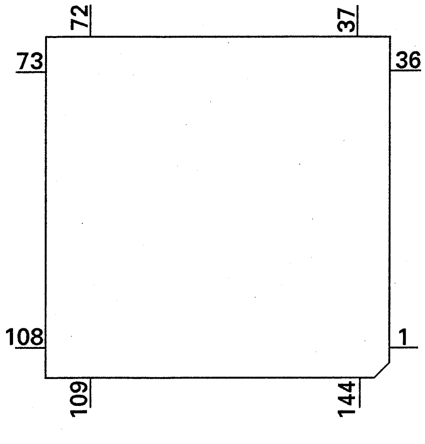

ASIC
CPU
CPU I/F BLOCK
TOP SECTION
DMA CHANNEL SELECT SECTION
WAIT CONTROL SECTION
INTERRUPT CONTROL SECTION
PROTECT and CHIP SELECT GENERATOR SECTION
TIMER SECTION
A2-A11,A23
D0-D31
CPU_CLK
XBCYST
XRESET
XCS2(SRAM)
XCS3(ASIC)
XCS5(PCCARD)
XCS6(DSP)
XIOWR
XIORD
XMWR
XMRD
XLLBEN
XLUBEN
DMARQ0
DMARQ1
DMARQ2
XREADY
INTP0
INTP1
INTP2
INTP3
SRAM_CSSEL
XCS_SRAM
XCS_SRAMH
XCS_FLASH
XCS_DSP
XWR_SRAM
ASIC_CLK
XRESET
A7-A2
WExx
RExx
DMAxx
WTxx
INTxx
INT
DMA
WAIT
AUDIO BLOCK
CD-ROM BLOCK
PERI BLOCK (SIO,PIO, REMOTE CONTROL)
ATAPI BLOCK
PC-CARD BLOCK
SOUND BLOCK
USB BLOCK

● Pin Functions(PD3390A)

Pin No.	Pin Name	I/O	Format	Function and Operation
1	VCC0			Power supply (3.3V)
2	VSS0			GND
3	TXD2	I/O		SIO2 Transmission data input / output
4	RXD2	I/O		SIO2 Reception data input / output
5	TXD1	O	C	SIO1 Transmission data output
6	RXD1	I		SIO1 Reception data input
7	TXD0	O	C	SIO0 Transmission data output
8	RXD0	I		SIO0 Reception data input
9	SPEED	I		SP I/F input
10	ADCSB	O	C	AD I/F output
11	ADSCK	O	C	AD I/F output
12	ADTXD	O	C	AD I/F output
13	ADRXD	I		AD I/F input
14	ADSRX	I		AD I/F input
15	ADIO0	I/O		AD I/F input / output
16	ADIO1	I/O		AD I/F input / output
17	ADIO2	I/O		AD I/F input / output
18	VCC1			Power supply (3.3V)
19	VSS1			GND
20	PWM	O		PWM signal output
21	PLINT	I		PLL I/F input
22	PLCE	O	C	PLL I/F output
23	PLSCK	O	C	PLL I/F output
24	PLTX	O	C	PLL I/F output
25	PLRX	I		PLL I/F input
26	PLIO0	I/O		PLL I/F input / output
27	PLIO1	I/O		PLL I/F input / output
28	PLIO2	I/O		PLL I/F input / output
29	DDINT	I		Darc I/F input
30	DDCE	O	C	Darc I/F output
31	DDSCK	O	C	Darc I/F output
32	DDTX	O	C	Darc I/F output
33	DDRX	I		Darc I/F input
34	DDIO0	I/O		Darc I/F input / output
35	DDIO1	I/O		Darc I/F input / output
36	DDIO2	I/O		Darc I/F input / output
37	TIOA0	I/O		Parallel input / output
38	TIOA1	I/O		Parallel input / output
39	TIOB0	I/O		Parallel input / output
40	TIOB1	I/O		Parallel input / output
41	VCC2			Power supply (3.3V)
42	VSS2			GND
43-53	A19-9	I/O		Address bus input / output
54	VCC3			Power supply (3.3V)
55	VSS3			GND
56-64	A8-0	I/O		Address bus input / output
65	VCC4			Power supply (3.3V)
66	VSS4			GND
67-82	D0-15	I/O		Address bus input / output
83	VCC5			Power supply (3.3V)
84	VSS5			GND
85	WRHB	I/O		Upper data write strobe input / output
86	WRLB	I/O		Lower data write strobe input / output
87	RDB	I/O		Read data strobe input / output
88	CS2B	I/O		Chip select aria 1 for external storage input / output
89	CS0B	I/O		Chip select aria 0 for ROM input / output
90	VCC6			Power supply (3.3V)

Pin No.	Pin Name	I/O	Format	Function and Operation
91	VSS6			GND
92	TEST2			Test mode
93	CKOEB	I		CK output enable input
94	CK	O	C	CPU clock output
95	CS5B	O	C	DRAM low address strobe output
96	CS3B	O	C	DRAM column address strobe output
97	CS1B	O	C	DRAM column address upper byte strobe output
98	RTCVSS1			Power supply (3.3V)
99	SRAMB	I		Backup memory select input
100	STANBYB	I		Stand by signal input
101	RTCVSS0			GND
102	XRTCIN	I		Sub crystal oscillator input (RTC)
103	XRTCOUT	O	C	Sub crystal oscillator output (RTC)
104	RTCVCC			Power supply (3.3V)
105	PCKSEL0	I		Processor clock select input
106	PCKSEL1	I		Processor clock select input
107	CCKSEL	I		CRCK signal select input
108	CCKDIR	I/O		Carrier clock direct input / inverter amp output
109	CCKVCC			Power supply (3.3V)
110	CRCK	I		Carrier clock
111	CCKGND			GND
112-118	PC0-6	I/O		Parallel input / output
119	NMI	I/O		Connect to VCC
120	RESETB	I		System reset input
121	MSTRSTB	I		Test reset input
122	TEST0	I		Test mode input
123	TEST1	I		Test mode input
124	REFSEL	I		GPS reference clock select input
125	REFCK	I		Reference clock input
126	VCC7			Power supply (3.3V)
127	VSS7			GND
128	XAUXIN	I		Sub crystal oscillator output (AUX)
129	XAUXOUT	O	C	Sub crystal oscillator output (AUX)
130-133	PIN0-3	I		Parallel input
134-137	PIO4-7	I/O		Parallel input / output
138	TXD3	I/O		SIO3 Transmission data input / output
139	RXD3	I/O		SIO3 Reception data input / output
140	BOWWOWB	O	C	Watch dog timer output
141	IFDIR	I/O		IF direct input / IF inverter amp output
142	IFVCC			Power supply (3.3V)
143	IF	I		IF input
144	IFGND	I		IF amp GND input

*PD3390A



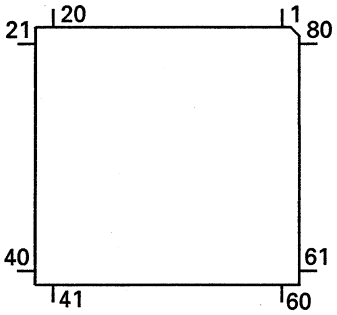
Format	Meaning
C	C MOS

● Pin Functions (PE5228A)

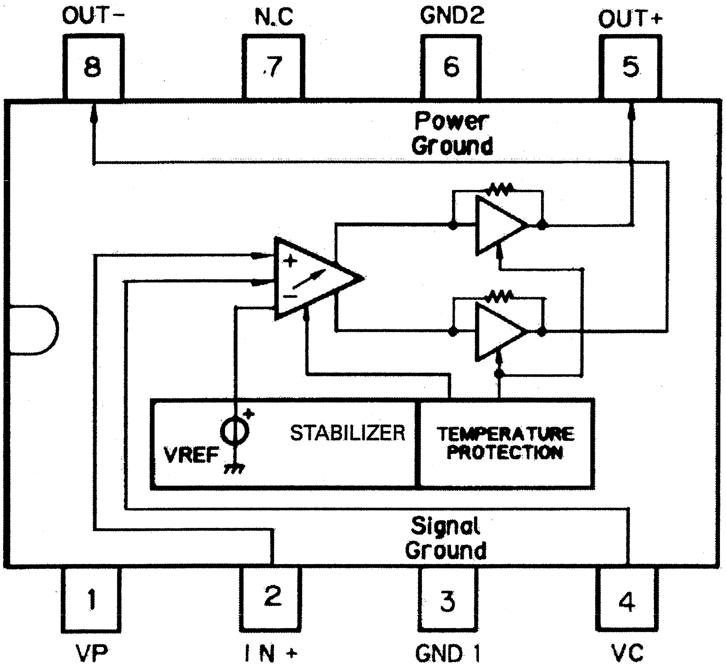
Pin No.	Pin Name	I/O	Format	Function and Operation
1-3	NC			Not used
4	AVSS			A/D GND
5	VOL	O		Guide voice volume output
6	NC			Not used
7	AVREF1			(D/A converter reference voltage)
8	FROMCC	I		Data input from CC UNIT (UART)
9	TOCC	O	C	Data output to CC UNIT (UART)
10	NC			Not used
11	FORMEX	I		Data input from EXT (UART)
12	TOEX	O	C	Data output to EXT (UART)
13-15	NC			Not used
16	TSI/FSI	I		Test program data input
17	TSO/FSO	O	C	Test program data output
18	TSCKFCK	I		Test program clock input
19,20	NC			Not used
21	ROMDT	O	C	ROM collection data output
22	ROMCLK	O	C	ROM collection clock output
23	ROMCS	O	C	ROM collection chip select output
24	ACCPW	O	C	ACC power supply output
25	GPSON	O	C	GPS power supply ON output
26	DRAMPW	O	C	DRAM power supply control output
27	RGBMUTE	O	C	RGB audio mute output
28	RCAMUTE	O	C	RCA audio mute output
29	RSTOUT	O	C	Reset output
30	DVDON	O	C	DVD power supply ON output
31	CCON	O	C	Car computer power supply ON output
32	IRQPOW	O	C	Emergency stand-by request output (BSENS)
33	VSS1			GND
34,35	NC			Not used
36-38	SIMUKE0-2	I		Model detect input 0-2
39,40	SEDAI0,1	I		Generation detect input 0,1
41	TVON	O	C	TV communication enable output
42	ALARMOUT	O	C	Detach warning LED output
43	MAYSNS	I		MAYDAY UNIT detect input (H : No unit)
44-47	CCPORT0-3	O	C	Control port output from CC UNIT 0-3 (Stand-by time = L)
48,49	INPORT0,1	I		Input notice port input to CC UNIT 0,1 (Stand-by time = L)
50	TESTMODE	I		Navigation test mode detect input (H : Test mode)
51	TESTIN	I		Chip test / Enable input (L : Chip test)
52	NC			Not used
53	CPUWDT	I		WDT operation input from CC UNIT
54	NC			Not used
55	M/S	I		Master / Slave input (H : Alone)
56,57	NC			Not used
58	TIMEOUT	I		(L : No time-out)
59	NC			Not used
60	$\overline{\text{RESET}}$	I		Reset input
61	REMIN	I		Remote control data input
62	$\overline{\text{BSENS}}$	I		Back Up sense input
63	$\overline{\text{ASENS}}$	I		ACC sense input
64	HELPIN	I		HELP system SW input
65	DISC	I		DISC detect input
66	NC			Not used
67	VSS0			GND
68	VDD1			Power supply
69	X2			Crystal oscillating element connection pin (Main system)
70	X1			Crystal oscillating element connection pin (Main system)

Pin No.	Pin Name	I/O	Format	Function and Operation
71	TEST/VPP			Connect to GND
72	XT2			Crystal oscillating element connection pin (Sub system)
73	XT1			Crystal oscillating element connection pin (Sub system)
74	VDD0			Power supply
75	AVDD			(A/D converter power supply)
76-80	NC			Not used

*PE5228A


21
20
1
80
40
61
41
60

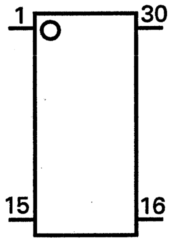
TDA7052A


OUT-
N.C
GND2
OUT+
8
7
6
5
Power Ground
+
-
VREF
STABILIZER
TEMPERATURE PROTECTION
Signal Ground
1
2
3
4
VP
I N +
GND 1
VC

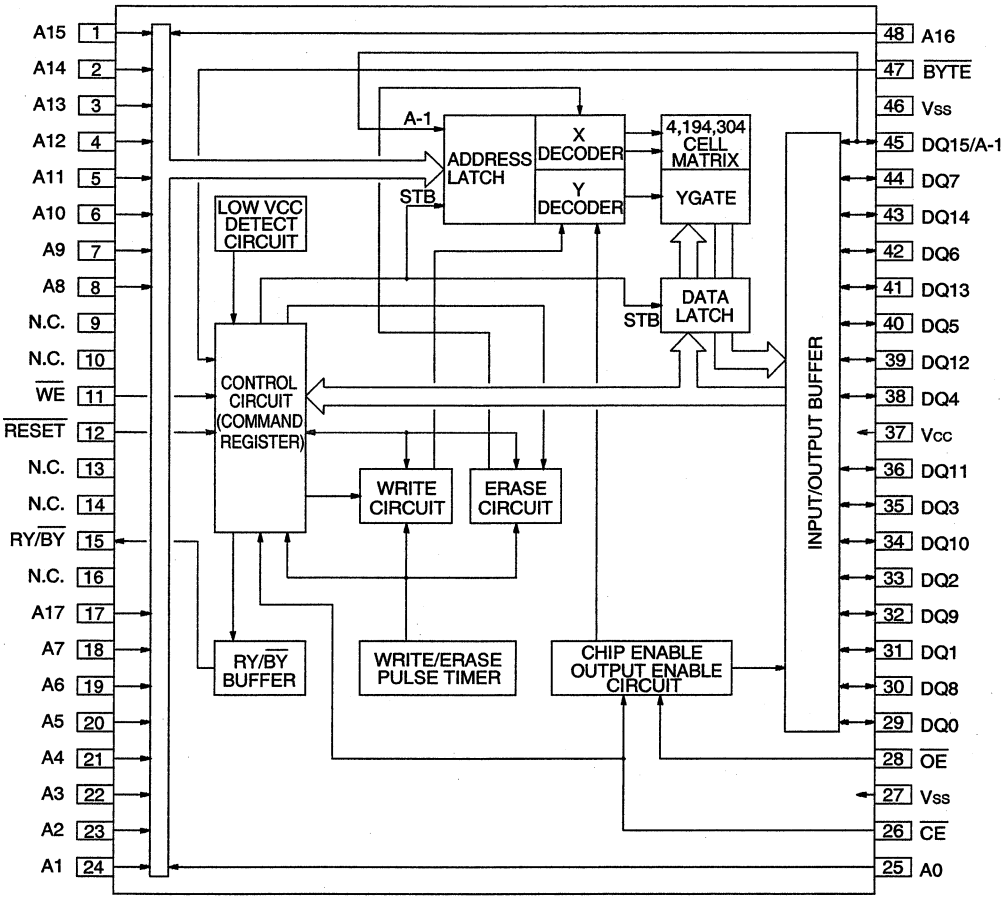
● Pin Functions(LC72720YVS)

Pin No.	Pin Name	I/O	Function and Operation
1	VREF	O	Reference voltage output
2	MPXIN	I	Base band (multiplexed) signal input
3	Vdda		Analog system power supply (+5V)
4	NC		Not used
5	Vssa		Analog system GND
6	FLOUT	O	Sub carrier output (filter output)
7	CIN	I	Sub carrier input (comparator input)
8	NC		Not used
9	T1	I	Test input (connect to GND)
10	T2	I	Test input (stand-by control)
11	T3	O	RDS clock output
12	NC		Not used
13	T4	O	RDS data output
14	T5	O	Soft-decision control data output
15	XOUT	O	Crystal oscillator output
16	XIN	I	Crystal oscillator input
17	Vddd		Digital system power supply (+5V)
18	Vssd		Digital system GND
19	NC		Not used
20	T6	O	Error status, regenerated carrier and error block count outputs
21	T7	O	Error correction status, SK detection and error block count outputs
22	SYNC	O	Block synchronization detection output
23	NC		Not used
24	RDS-ID	O	RDS detection output
25	DO	O	Data output
26	CL	I	Clock input
27	NC		Not used
28	DI	I	Data input
29	CE	I	Chip enable input
30	SYR	I	Synchronization and RAM address reset input

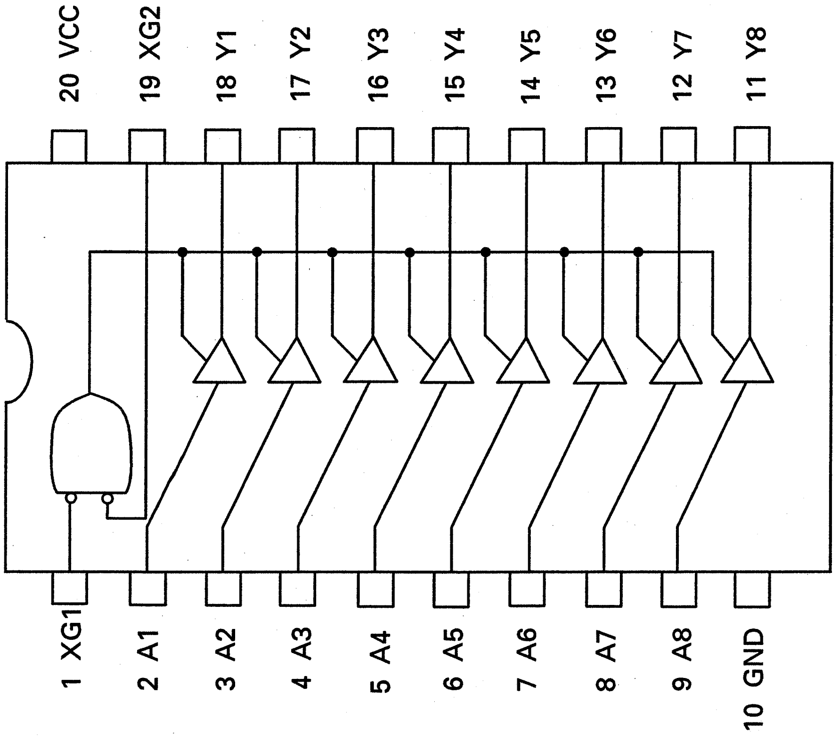
*LC72720YVS



*PD6361B

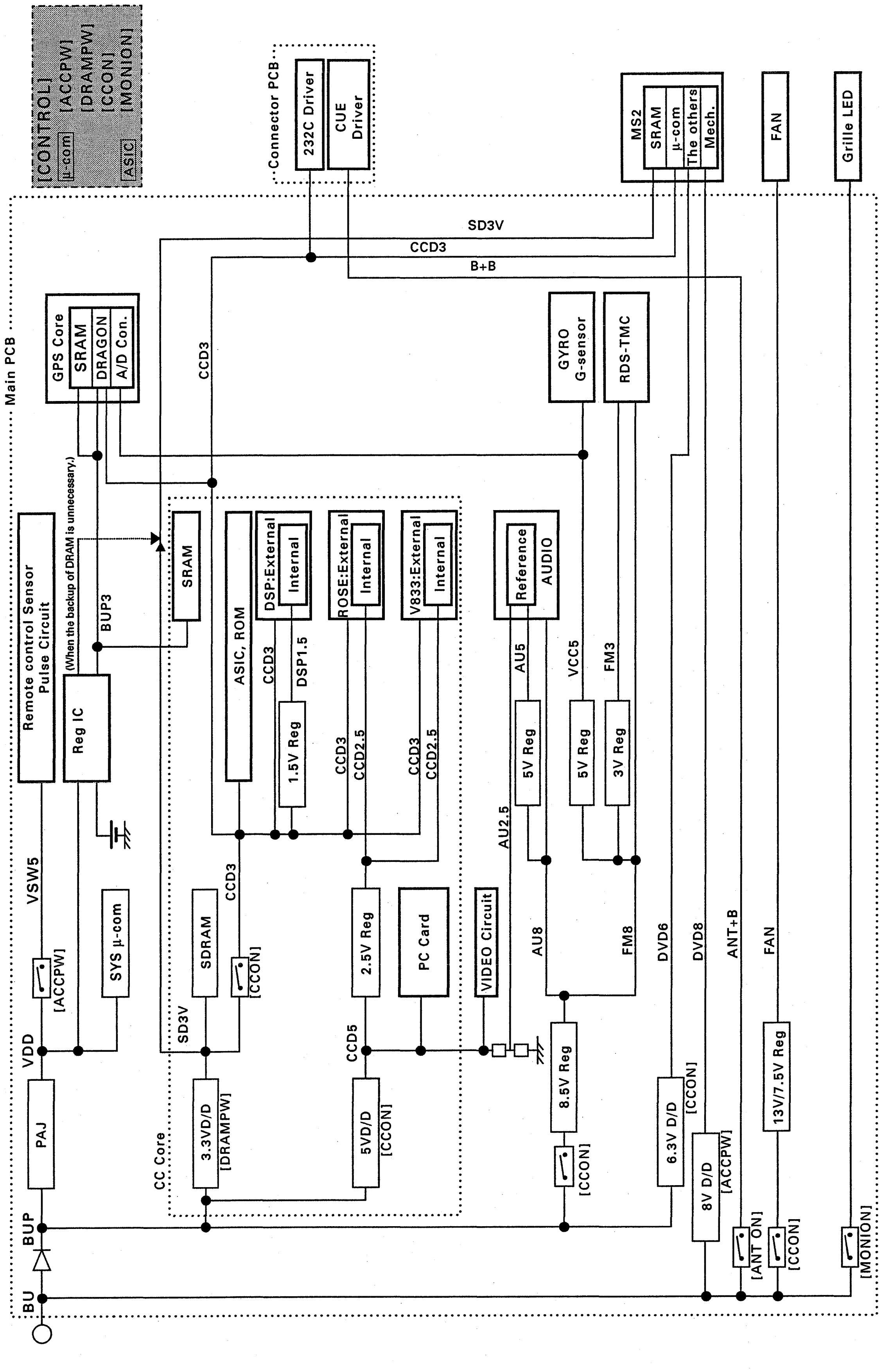

A15 1
A14 2
A13 3
A12 4
A11 5
A10 6
A9 7
A8 8
N.C. 9
N.C. 10
WE 11
RESET 12
N.C. 13
N.C. 14
RY/BY 15
N.C. 16
A17 17
A7 18
A6 19
A5 20
A4 21
A3 22
A2 23
A1 24
48 A16
47 BYTE
46 Vss
45 DQ15/A-1
44 DQ7
43 DQ14
42 DQ6
41 DQ13
40 DQ5
39 DQ12
38 DQ4
37 Vcc
36 DQ11
35 DQ3
34 DQ10
33 DQ2
32 DQ9
31 DQ1
30 DQ8
29 DQ0
28 OE
27 Vss
26 CE
25 A0
A-1
STB
ADDRESS LATCH
X DECODER
Y DECODER
4,194,304 CELL MATRIX
YGATE
LOW VCC DETECT CIRCUIT
DATA LATCH
STB
CONTROL CIRCUIT (COMMAND REGISTER)
INPUT/OUTPUT BUFFER
WRITE CIRCUIT
ERASE CIRCUIT
RY/BY BUFFER
WRITE/ERASE PULSE TIMER
CHIP ENABLE OUTPUT ENABLE CIRCUIT

*TC74LCX541FT

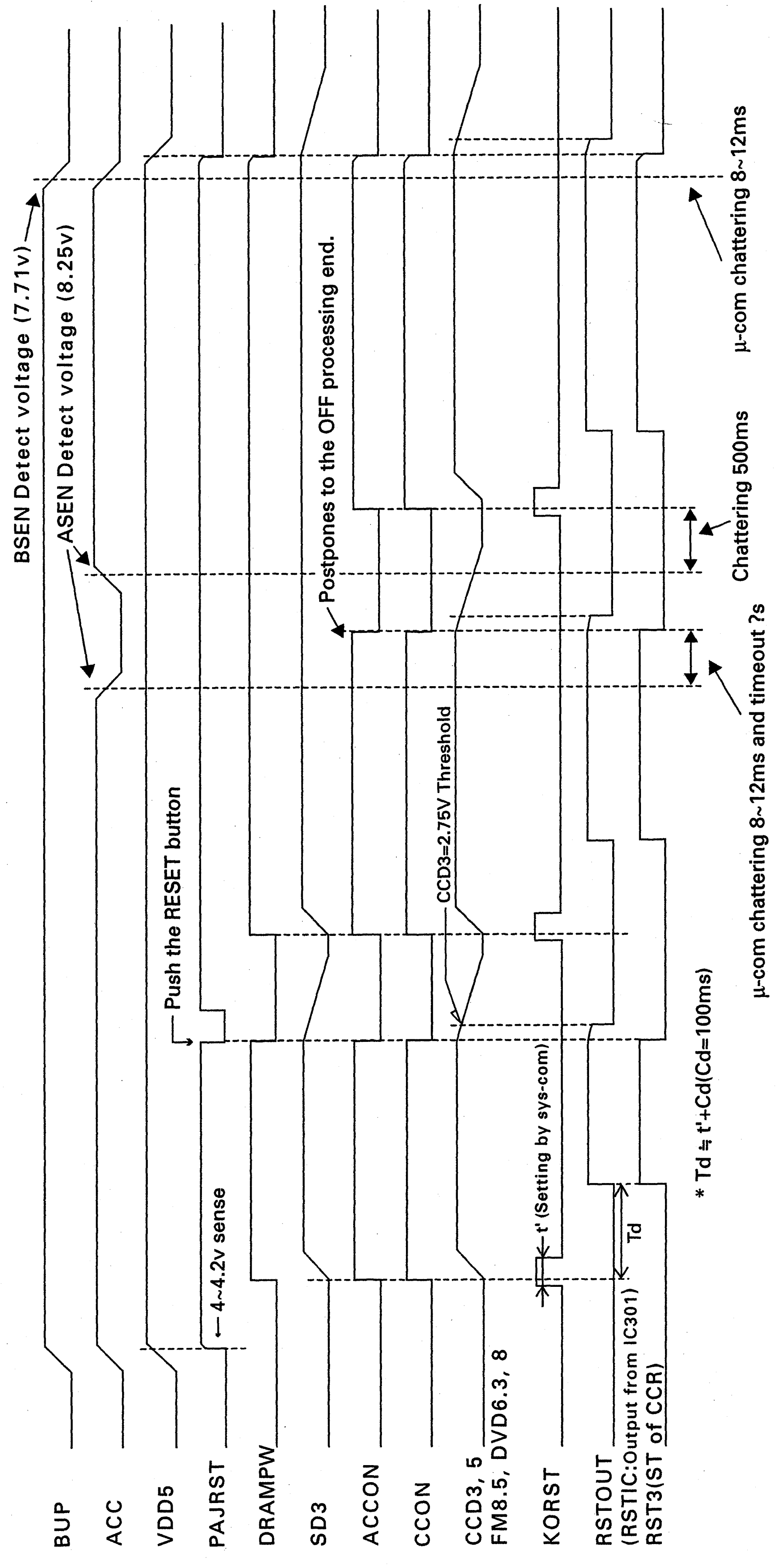

20 VCC
19 XG2
18 Y1
17 Y2
16 Y3
15 Y4
14 Y5
13 Y6
12 Y7
11 Y8
1 XG1
2 A1
3 A2
4 A3
5 A4
6 A5
7 A6
8 A7
9 A8
10 GND

7.3 EXPLANATION

7.3.1 CIRCUIT DESCRIPTIONS


[CONTROL]
μ-com [ACCPW]
[DRAMPW]
[CCON]
ASIC [MONION]
Connector PCB
232C Driver
CUE Driver
MS2
SRAM
μ-com
The others
Mech.
FAN
Grille LED
Main PCB
SD3V
CCD3
B+B
GPS Core
SRAM
DRAGON
A/D Con.
GYRO
G-sensor
RDS-TMC
(When the backup of DRAM is unnecessary.)
Remote control Sensor Pulse Circuit
BUP3
Reg IC
SRAM
ASIC, ROM
DSP:External
Internal
ROSE:External
Internal
V833:External
Internal
Reference
AUDIO
CCD3
DSP1.5
1.5V Reg
CCD3
CCD2.5
CCD3
CCD2.5
AU5
VCC5
FM3
5V Reg
5V Reg
3V Reg
AU2.5
VSW5
SYS μ-com
SDRAM
CCD3
2.5V Reg
PC Card
VIDEO Circuit
AU8
FM8
DVD6
DVD8
ANT+B
FAN
[ACCPW]
[CCON]
VDD
SD3V
CCD5
PAJ
3.3VD/D
[DRAMPW]
5VD/D
[CCON]
CC Core
8.5V Reg
[CCON]
6.3V D/D
[CCON]
8V D/D
[ACCPW]
13V/7.5V Reg
[ANT ON]
[CCON]
[MONION]
BUP
BU

7.3.2 OPERATIONAL FLOW CHART


BUP
ACC
VDD5
PAJRST
DRAMPW
SD3
ACCON
CCON
CCD3, 5
FM8.5, DVD6.3, 8
KORST
RSTOUT
(RSTIC:Output from IC301)
RST3(ST of CCR)
BSEN Detect voltage (7.71v)
ASEN Detect voltage (8.25v)
Postpones to the OFF processing end.
Push the RESET button
← 4~4.2v sense
CCD3=2.75V Threshold
t' (Setting by sys-com)
Td
* Td ≒ t'+Cd(Cd=100ms)
μ-com chattering 8~12ms
Chattering 500ms
μ-com chattering 8~12ms and timeout ?s

7.4 CLEANING

Before shipping out the product, be sure to clean the following portions by using the prescribed cleaning tools:

Portions to be cleaned	Cleaning tools
DVD pickup lenses	Cleaning liquid : GEM1004 Cleaning paper : GED-008

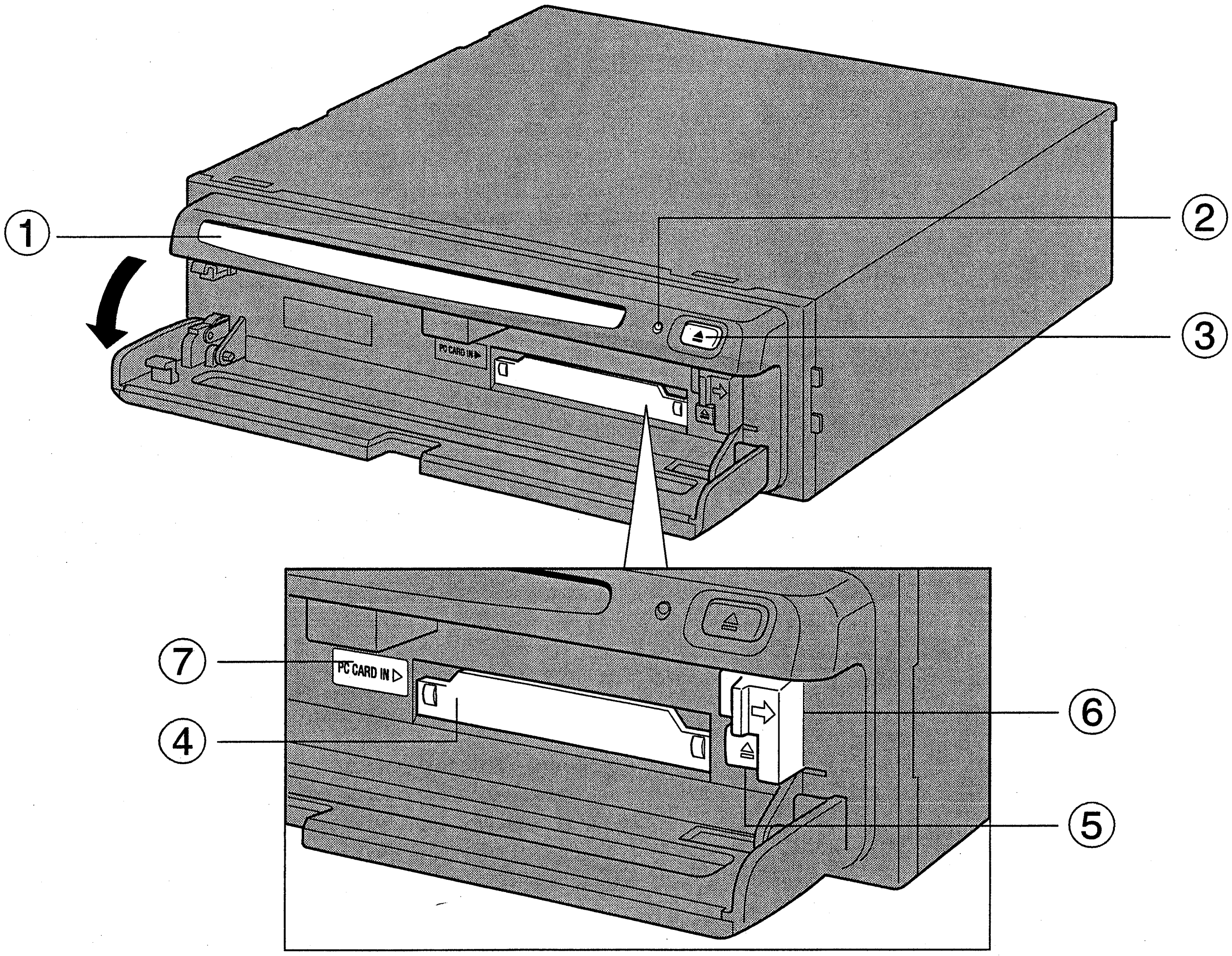
Portions to be cleaned	Cleaning tools
Fans	Cleaning paper : GED-008

8. OPERATIONS AND SPECIFICATIONS

8.1 OPERATIONS

Key Finder

Main unit



(1) Disc loading slot

(2) Reset button
If the system goes wrong, reset it by pressing this recessed button with a ballpoint pen or similar pointed object.

(3) Disc ejection button

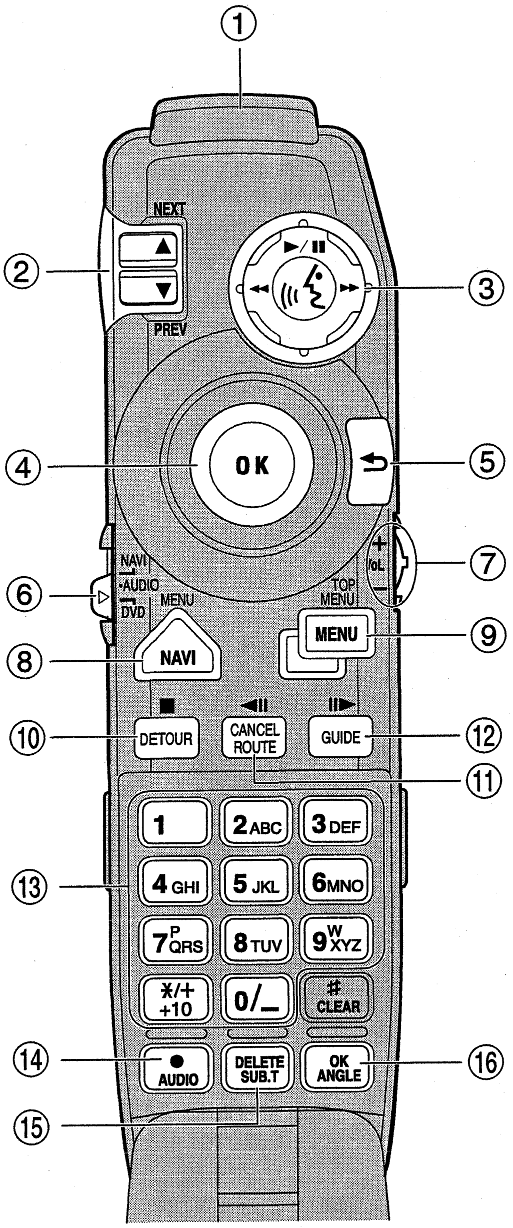
(4) PC card slot

(5) PC card ejection button
Remove the PC card by pressing this button.

(6) PC card lock lever
This lever is used when you remove the PC card.

(7) PC card lock lamp
The red light goes on when the PC card is inserted and a proper connection is made.

NAVIGATION Operation


①
②
NEXT
PREV
▶/II
③
④
OK
⑤
⑥
NAVI
-AUDIO
DVD
MENU
TOP MENU
+
VOL
−
⑦
⑧
NAVI
MENU
⑨
■
◀II
II▶
⑩
DETOUR
CANCEL ROUTE
GUIDE
⑫
⑪
1
2ABC
3DEF
⑬
4GHI
5JKL
6MNO
7PQRS
8TUV
9WXYZ
*/+ +10
0/_
# CLEAR
⑭
● AUDIO
DELETE SUB.T
OK ANGLE
⑯
⑮

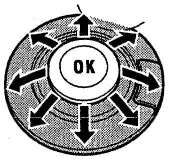
(1) Transmitter
Signals of the Remote Control are transmitted from here.

(2) NEXT/PREV control
You use the scale control to enlarge or reduce the displayed map. When you move the scale control downwards, the scale of the displayed map is enlarged and a more detailed map is displayed. Conversely, moving it upwards reduces the displayed map, and a wider area is displayed. In menus, when a list is longer than one screen, this control is used for indicating the next screen or previous screen.

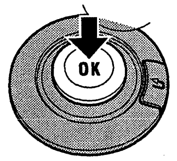
(3) Control stick and PLAY/PAUSE button (TALK button)
You use the TALK button to start voice recognition, allowing you to command the Navigation System by speech. When a voice command is given, you can cycle through possible matches by clicking down this button.

➲ With the "CD-SR80" Steering Remote Control (sold separately), you can press the BAND button and the F button to switch on the operation mode of the Steering Remote Control. When the operation mode is switched on, by pressing the BAND button of the Steering Remote Control, you can activate voice operation, which is equivalent of pressing the TALK button. "CD-SR90" and "CD-SR100" also can start voice operation, which is equivalent of pressing the TALK button. (For the details of the operation, see the Owner's manual of each steering remote control.)

(4) Joystick/OK button
Use the joystick to select items in the display and to scroll the map. The joystick is also the OK button; simply press it to select a location on the map or an option displayed on the screen.



Used as the joystick :
Directions of movements indicated by arrows are possible.



Used as the OK button :
Press straight down.

(5) BACK button
While using a menu, pressing this button cancels the present operation and returns you to the previously displayed menu or list.

(6) Operation mode switch
Changes the remote control's mode.

(7) VOL dial
When you turn the dial downwards, the volume decreases. Turning it upwards increases the volume.

- When the Dipswitch 4 is ON, the volume of the voice guidance of the Navigation System is adjusted.
- When the Dipswitch 4 is OFF, the volume of Pioneer Head Unit is adjusted. If the dial is pressed, the volume is reduced to around 1/10th of the volume (ATT function). When pressed again, the volume returns to its previous level.

(8) MENU (NAVI) button
You press this button to view the map or return to guidance. Also, when the map is scrolled, pressing this button returns to the display of the map of your surroundings.

(9) TOP MENU (MENU) button
Pressing this button displays a menu of options.

(10) ■ (DETOUR) button
Press this button to restart route calculation, such as calculating a detour. If this button is pressed for more than two seconds, you can see the information (passing roads and driving distance, and so on) of the route down which you are currently being guided.

(11) ◀II (CANCEL ROUTE) button
Press this button to cancel the route guidance. When pressed for more than two seconds, the next via point is recognised as already being passed, and a new route calculation starts.

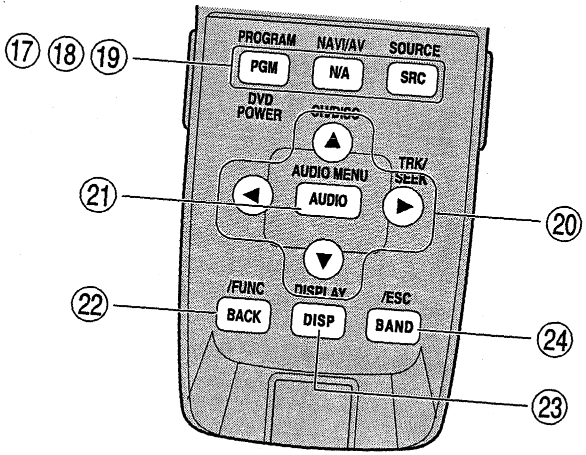
(12) II▶ (GUIDE) button
Press this button if you want to hear the voice guidance again. If this button is pressed for more than two seconds, you can listen to traffic information on your route (where available).

(13) Numeric keypad
You use this pad for entering characters or numbers.

(14) AUDIO [•] button
Not used.

(15) SUB.T (DELETE) button
Press to delete the character you just entered. If you press this button for more than two seconds, all the characters entered will be deleted.

(16) ANGLE (OK) button
This works in the same way as "OK" on the text palette.



(17) PGM (DVD POWER) button
Function is preset for each source as shown below. Sources not shown below do not feature this function. (Depending on the component, you can change the Preprogram. For details, refer to the Head Unit's instructions.)
Not effective with NAVIGATION built-in sources.

CD (one disc only), **Multi-CD player,** **DVD player (one disc only),** **Multi-DVD player :**	PAUSE
TUNER :	BSM (Press for 2 seconds or more)
TV :	BSSM (Press for 2 seconds or more)
External unit :	FUNC1

(18) NAVI/AV button
Switches the display to the desired indications. Use to switch between Navigation map displays and audio component displays.

(19) SRC (SOURCE) button
Switches between sources and switches power ON/OFF. (Depending on the connected units, operation may differ slightly. Refer to "Switching Sources" in the connected unit's instructions.)

(20) Cross Key ◀, ▶, ▲, ▼ button
Use to skip CD tracks, perform preset tuning with the tuner, and select items indicated in the display.

(21) AUDIO (A.MENU) button
Displays audio menus.

Setting C :	Not used.

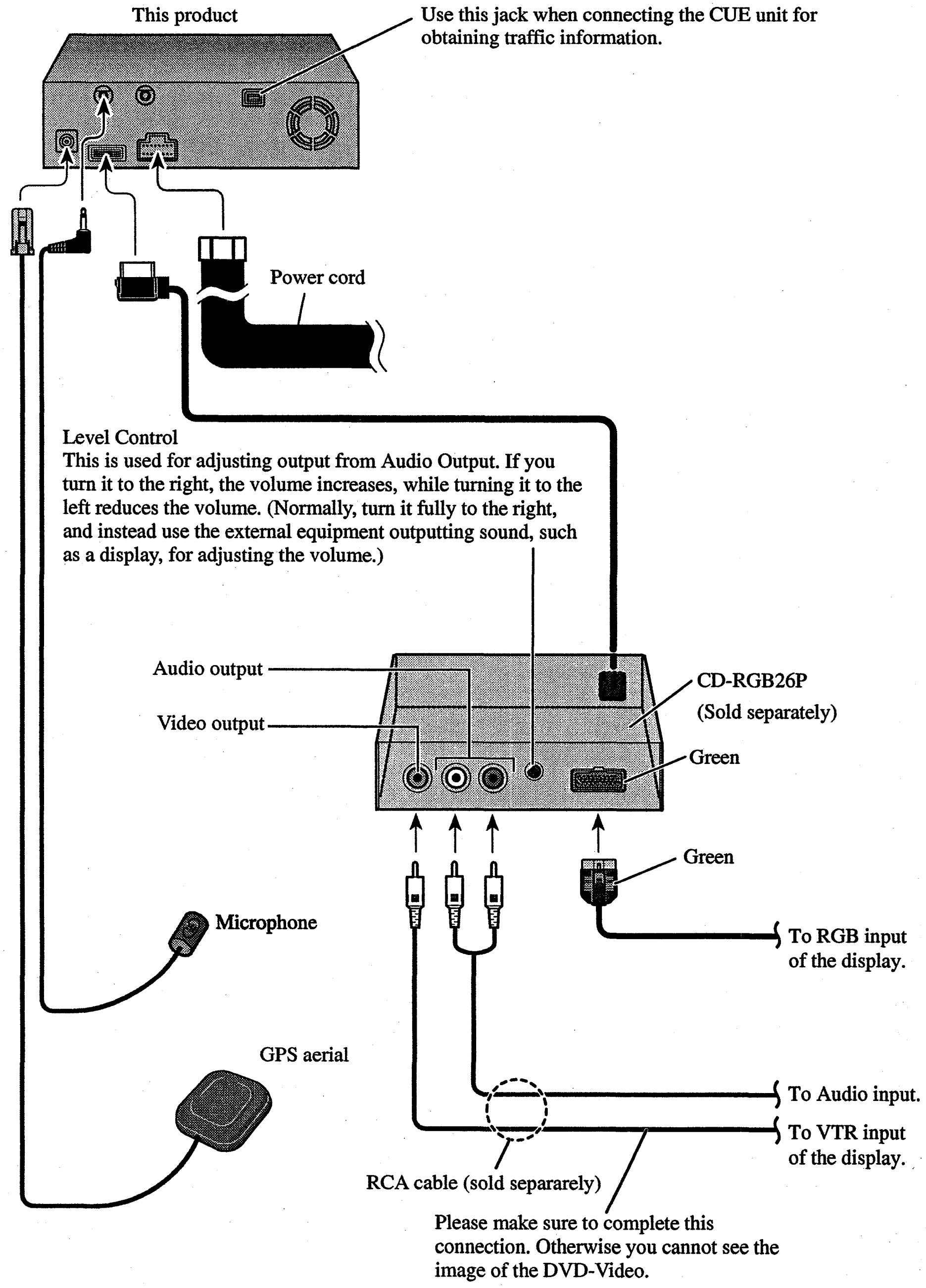
(22) BACK/FUNC button

Setting A :	Returns you to the previous display.
Settings B and D :	Display function menus.
Setting C :	Not used.

(23) DISP button
If, for example, you use this product with a Multi-CD player, when playing a CD TEXT disc you can enjoy display of the CD title and other information.

(24) BAND/ESC button
This functions as the BAND button when using each source. It also cancels the menu you are viewing, and returns you to the original display.

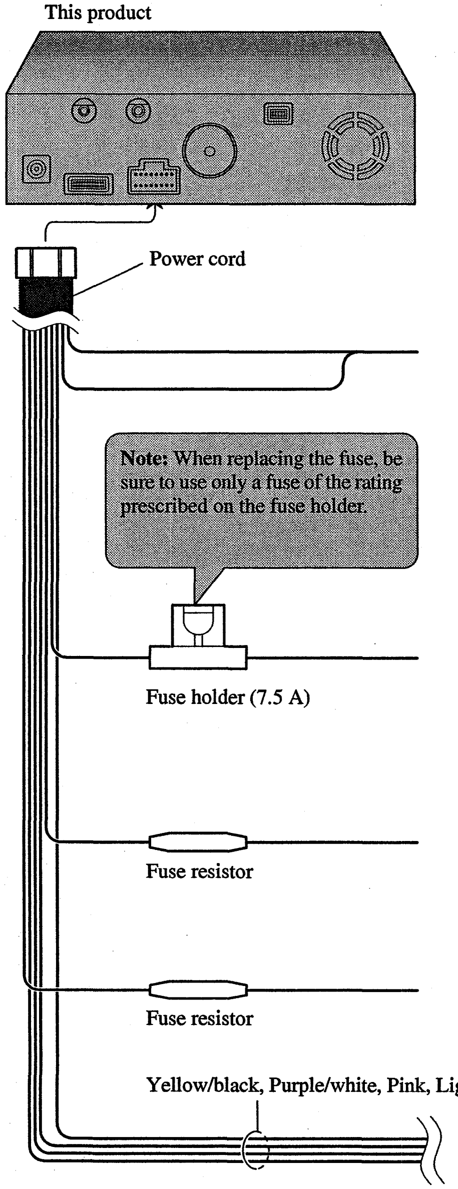
Connecting the System


This product
Power cord
Audio output
Video output
CD-RGB26P
(Sold separately)
Green
Green
Microphone
GPS aerial
To RGB input of the display.
To Audio input.
To VTR input of the display.
RCA cable (sold separarely)

Use this jack when connecting the CUE unit for obtaining traffic information.

Level Control
This is used for adjusting output from Audio Output. If you turn it to the right, the volume increases, while turning it to the left reduces the volume. (Normally, turn it fully to the right, and instead use the external equipment outputting sound, such as a display, for adjusting the volume.)

Please make sure to complete this connection. Otherwise you cannot see the image of the DVD-Video.


This product
Power cord
Fuse holder (7.5 A)
Fuse resistor
Fuse resistor
Yellow/black, Purple/white, Pink, Lightgreen

Note: When replacing the fuse, be sure to use only a fuse of the rating prescribed on the fuse holder.

Note:
Cords for this product and those for other products may be different colours even if they have the same function. When connecting this product to another product, refer to the supplied Installation manuals of both products and connect cords that have the same function.

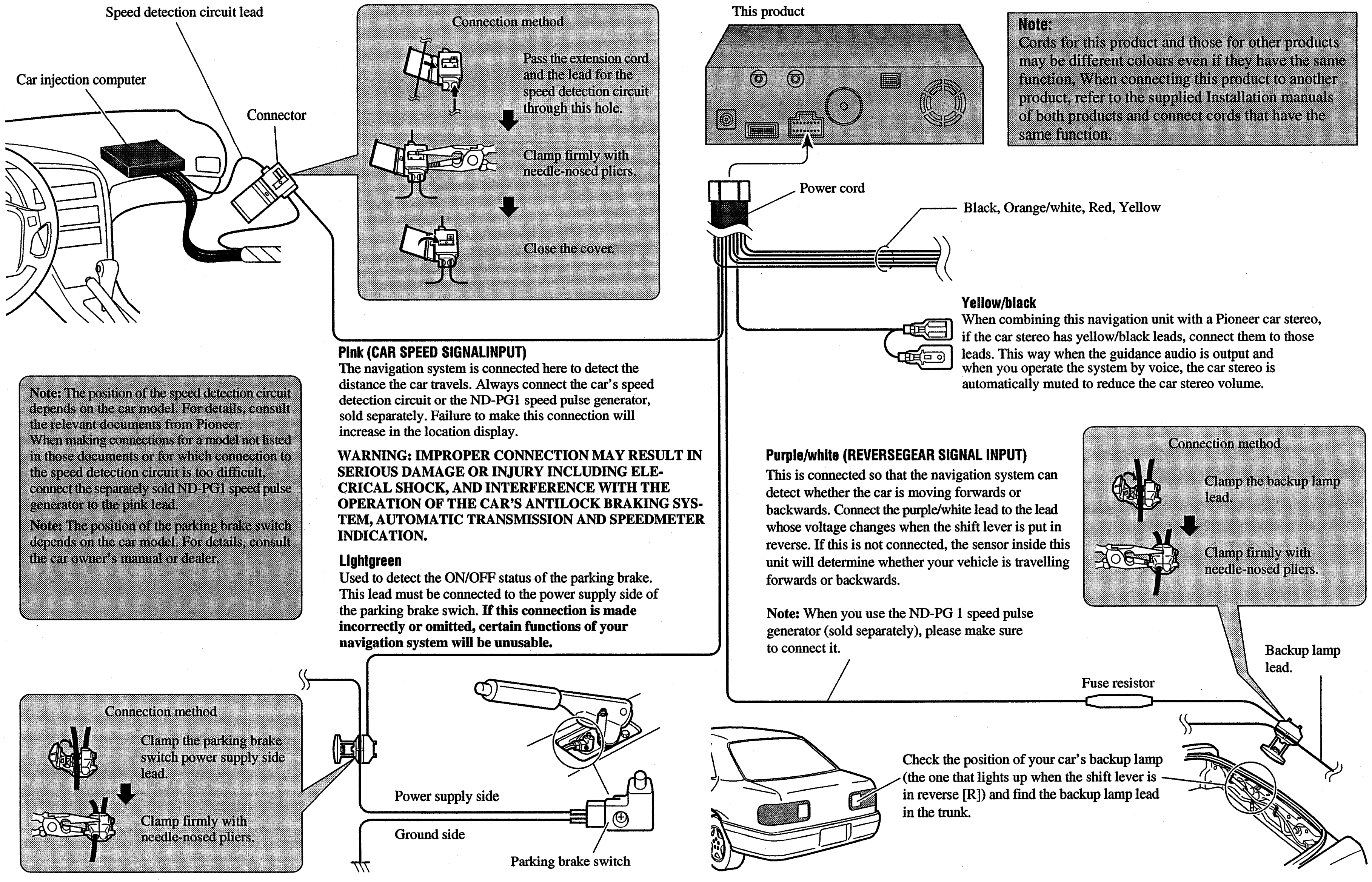
Black
To car (metal) body. To keep electromagnetic noise from the car body out of the navigation system, attach this lead near the main unit.

Note: The yellow, red, and orange/white leads should be connected to the opposite side of the fusebox terminals from the battery.

Yellow
To the terminal always supplied with power regardless of ignition switch position.

Red
To the electric terminal controlled by the ignition switch (12 V DC) ON/OFF.
Do not connect this lead to power source terminals to which power is continuously supplied. If the lead is connected to such terminals, the battery may be drained.

Orange/white
To lighting switch terminal.



Note:
Cords for this product and those for other products may be different colours even if they have the same function. When connecting this product to another product, refer to the supplied Installation manuals of both products and connect cords that have the same function.

Connection method

Pass the extension cord and the lead for the speed detection circuit through this hole.

Clamp firmly with needle-nosed pliers.

Close the cover.

Note: The position of the speed detection circuit depends on the car model. For details, consult the relevant documents from Pioneer.
When making connections for a model not listed in those documents or for which connection to the speed detection circuit is too difficult, connect the separately sold ND-PG1 speed pulse generator to the pink lead.

Note: The position of the parking brake switch depends on the car model. For details, consult the car owner's manual or dealer.

Pink (CAR SPEED SIGNALINPUT)
The navigation system is connected here to detect the distance the car travels. Always connect the car's speed detection circuit or the ND-PG1 speed pulse generator, sold separately. Failure to make this connection will increase in the location display.

WARNING: IMPROPER CONNECTION MAY RESULT IN SERIOUS DAMAGE OR INJURY INCLUDING ELECRICAL SHOCK, AND INTERFERENCE WITH THE OPERATION OF THE CAR'S ANTILOCK BRAKING SYSTEM, AUTOMATIC TRANSMISSION AND SPEEDMETER INDICATION.

Lightgreen
Used to detect the ON/OFF status of the parking brake. This lead must be connected to the power supply side of the parking brake swich. **If this connection is made incorrectly or omitted, certain functions of your navigation system will be unusable.**

Connection method

Clamp the parking brake switch power supply side lead.

Clamp firmly with needle-nosed pliers.

Yellow/black
When combining this navigation unit with a Pioneer car stereo, if the car stereo has yellow/black leads, connect them to those leads. This way when the guidance audio is output and when you operate the system by voice, the car stereo is automatically muted to reduce the car stereo volume.

Purple/white (REVERSEGEAR SIGNAL INPUT)
This is connected so that the navigation system can detect whether the car is moving forwards or backwards. Connect the purple/white lead to the lead whose voltage changes when the shift lever is put in reverse. If this is not connected, the sensor inside this unit will determine whether your vehicle is travelling forwards or backwards.

Note: When you use the ND-PG 1 speed pulse generator (sold separately), please make sure to connect it.

Connection method

Clamp the backup lamp lead.

Clamp firmly with needle-nosed pliers.

Check the position of your car's backup lamp (the one that lights up when the shift lever is in reverse [R]) and find the backup lamp lead in the trunk.

8.2 SPECIFICATIONS

● AVIC-90DVD/UC

Specifications

Main unit
(GPS receiver)
System : L1, C/Acode GPS
SPS (Standard Positioning Service)
Reception system : 8-channel multi-channel reception system
Reception frequency : 1,575.42 MHz
Sensitivity : -130 dbm
Frequency : Approx. once a second

(Common)
Max. output impedance : 1Vp-p, 75Ω
Maximum current consumption : 2 A
Power source : DC 14.4V (10.8 - 15.1V allowed)
Ground type : Negative type
Buckup current : 4mA or less

GPS antenna
Antenna : Micro strip flat antenna/right-handed helical polarization
Antenna cable : 5.0 m (16ft. 5 in)

Dimensions
Main unit : 178(W) × 50(H) × 178(D) mm (7 × 2 × 7 in)
GPS antenna : 34(W) × 13(H) ×36(D) mm (1-3/4 × 1-3/4 × 1-3/8 in)
Remote controller : 38(W) × 146(H) × 30(D) mm (1-1/2 × 5-3/4 × 1-1/8 in)

Weight
Main unit : 1.5 kg (3.3 lbs.)
GPS aerial : 105g (0.23 lbs.)
Remote controller : 87g (incl. battery) (0.2 lbs.)

DVD mechanism part
REGION NUMBER : 1
USABLE DISCS : DVD-VIDEO/CD
SIGNAL FORMAT
Sampling frequency : 44.1/48/96KHz
Number of quantization bits : 16/20/24 bit; linear
FREQUENCY RESPONSE : 5~44,000Hz (± 1dB)
S/N RATIO : 96dB (IEC-A NETWORK)
97dB (IEC-A NETWORK): CD
DINAMIC RANGE : 96dB (1kHz)
95dB (1kHz): CD
DISTORTION : 0.008% (1kHz)
OUTPUT LEVEL VIDEO : 1Vp-p/75Ω
AUDIO : 1mV (1kHz,0dB)
NUMBER OF CHANNELS : 2 (STEREO)

Note:
- The specifications and design are subject to change without prior notice. The product purchased may differ in detail from illustrations in this manual.

● AVIC-9DVDII/EW

Specifications

Main unit	
(GPS receiver)	
System	: L1, C/Acode GPS SPS (Standard Positioning Service)
Reception system	: 8-channel multi-channel reception system
Reception frequency	: 1,575.42 MHz
Sensitivity	: -130 dbm
Position update frequency	: Approx. once per second
(Common)	
Max. output impedance	: 1Vp-p, 75Ω
Maximum current consumption	: 2 A
Power source	: DC 14.4V (10.8 - 15.1V allowed)
Ground type	: Negative type
Buckup current	: 4mA or less
GPS aerial	
Aerial	: Micro strip flat antenna/right-handed helical polarization
Aerial cable	: 5.0 m
Dimensions	
Main unit	: 178(W) × 50(H) × 178(D) mm
GPS aerial	: 46(W) × 46(H) ×13(D) mm
Remote control	: 38(W) × 146(H) × 30(D) mm
Weight	
Main unit	: 1.5 kg
GPS aerial	: 130g
Remote control	: 80g (incl. battery)
DVD mechanism part	
REGION NUMBER	: 2
USABLE DISCS	: DVD-VIDEO/CD
SIGNAL FORMAT	
Sampling frequency	: 44.1/48/96KHz
Number of quantization bits	: 16/20/24 bit; linear
FREQUENCY RESPONSE	: 5~44,000Hz (± 1dB)
S/N RATIO	: 96dB (IEC-A NETWORK) 97dB (IEC-A NETWORK): CD
DINAMIC RANGE	: 96dB (1kHz) 95dB (1kHz): CD
DISTORTION	: 0.008% (1kHz)
OUTPUT LEVEL VIDEO	: 1Vp-p/75Ω
AUDIO	: 1mV (1kHz,0dB)
NUMBER OF CHANNELS	: 2 (STEREO)

Note:

- The specifications and design are subject to change without prior notice. The product purchased may differ in detail from illustrations in this manual.